

December 12, 2024

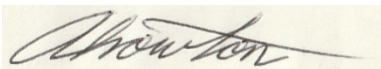
Andrew Wheeler  
Regulatory Specialist  
Mackenzie Valley Land and Water Board 7<sup>th</sup> Floor-4910  
50<sup>th</sup> Avenue,  
Yellowknife, NT  
X1A 2P6

**Re: Water Licence MV2021L2-0004, Report of Surveillance Network Program November 2024, Prairie Creek Mine Site.**

As per the Surveillance Network Program (SNP) for Water Licence MV2021L2-0004, please find enclosed the SNP Monthly Reporting for November 2024.

We trust this report meets with your requirements. Please contact the undersigned at [andrew.howton@norzinc.com](mailto:andrew.howton@norzinc.com) or alternatively Lynn Boettger at [lynn.boettger@norzinc.com](mailto:lynn.boettger@norzinc.com) should you have any questions or comments.

Sincerely,  
Andrew Howton



**Andrew Howton, B.Sc.**  
Environment Superintendent



(Parent company of Canadian Zinc Corporation)  
510 Burrard St. Suite 907  
Vancouver, BC V6C 3A8  
(M) 403-968-7471

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## Water Licence MV2021L2-0004

### Referenced Water Licence Conditions

#### *From Annex A: Surveillance Network Program: Part D – Reporting Requirements*

##### **Part D: Reporting Requirements**

1. The Licensee shall, within thirty (30) days following the month being reported, submit to the Board and Inspector, in electronic and printed formats acceptable to the Board, all data and information required by the Surveillance Network Program, including results and interpretation of the approved QA/QC program procedures, any interpretive comments and calculations, and rationale for SNP stations where samples were not collected. **Monthly SNP Reports** should also include:
  - a) Graphical summaries and interpretation of the analytical results from the SNP samples collected at the point of compliance for the period prior to Groundwater Dewatering (SNP station 3-4) compared to the EQC under Part F of this Licence, for the previous 2 consecutive years;
  - b) An explanation of any actions taken in response to any exceedances of the Effluent Quality Criteria;
  - c) Information regarding the calibration and status of the meters and devices referred to in Part B of this Licence;
  - d) The coordinates of all SNP stations which were established within the month being reported, including an updated map identifying the locations of all the SNP stations; and
    - i. Weekly quantity of Water in cubic metres withdrawn from the Water Supply Facilities;
    - ii. Weekly quantity of Waste in cubic metres Discharged;
    - iii. Observations from inspections of the Waste storage areas as required through the Waste Management Plan referred to in Part F, Condition WASTE MANAGEMENT PLAN of this Licence.
  - e) A tabular summary of cumulative Water Use; and
  - f) For parameters regulated under Part F, Conditions EFFLUENT QUALITY CRITERIA – EXFILTRATION TRENCH (SNP Station 13), individual graphs for each parameter showing trends in parameter concentrations in the Effluent compared to Effluent Quality Criteria over the previous years.]

## SNP Report As required under Annex A Part D of Water Licence MV2021L2-0004

This SNP report covers the month of November 2024. Samples for this period were submitted to the accredited environmental laboratory ALS Environmental Inc. The analytical reports received are appended to the end of this report in their entirety. There were 8 samples collected in the month of November 2024. A listing of SNP water samples can be seen in Table 1. The location of SNP stations can be seen on the site drawing in Appendix A. No new SNP stations were established during the reporting period.

**Table 1**

| Lab Reports             | Sample ID (SNP Station numbers) | Collection Date | Rationale/Comments                                |
|-------------------------|---------------------------------|-----------------|---------------------------------------------------|
| FJ2403426-001           | 3-4                             | 2024-11-06      | Polishing Pond discharge                          |
| FJ2403498-001           | 3-4                             | 2024-11-13      | Polishing Pond discharge                          |
| Frozen/unable to sample | 3-5                             | -               | Catchment Pond discharge                          |
| Frozen/unable to sample | 3-6                             | -               | Harrison Creek at Prairie Creek                   |
| FJ2403498-007           | 3-7                             | 2024-11-13      | 870 portal                                        |
| FJ2403498-004           | 3-10                            | 2024-11-13      | Prairie Creek upstream of site by quarry          |
| FJ2403498-005           | 3-11                            | 2024-11-13      | Prairie Creek ~1km downstream from Harrison Creek |
| FJ2403498-006           | 3-13                            | 2024-11-13      | Prairie Creek 100 m d/s of Harrison               |
| FJ2403498-002           | 3-14                            | 2024-11-13      | Field Blank                                       |
| FJ2403498-003           | 3-16                            | 2024-11-13      | Duplicate of 3-4                                  |
| Frozen/unable to sample | 14                              | -               | Harrison Creek above Waste Rock Pile              |
| Frozen/unable to sample | 14a                             | -               | Harrison Creek above Mill                         |

## Sampling Procedures and Quality Assurance/Quality Control (Part D Section 1)

Sampling is conducted using only bottles and preservatives provided by the analytical laboratory. Disposable gloves are used at each sample location along with a new syringe and filter when collecting samples. Samples for dissolved analytes are filtered in the field. After sampling, samples are stored in coolers with ice packs and sent with chain of custody forms to the laboratory on the next flight out of the mine site (samples are collected the day before a flight whenever possible).

During this reporting period, a duplicate sample (3-16) of Station 3-4 was collected, a field blank was also collected (3-14). The results for the field blank were below detection limits and the Relative Percent Difference (RPD) for 3-4 vs 3-16 fell within the acceptable range except for dissolved organic carbon (DOC) which had an RPD of 200%. The cause of this anomalous RPD value is unknown.

## Results (Part D Section 1)

Table 2 presents laboratory data for SNP Station 3-4 (polishing pond discharge) against Effluent Quality Criteria (EQC), no EQC exceedances are noted. Note the low pH seen in the field blank is normal for the deionized water used for the blank.

**Table 2**

| SNP Station                                                                                                                  | Sampling Date | pH        | Arsenic<br>total mg/L | Cadmium<br>total mg/L | Chromium<br>total mg/L                               | Copper total<br>mg/L | Lead total<br>mg/L | Mercury total<br>mg/L | Nickel total<br>mg/L | Zinc<br>dissolved<br>mg/L | TSS mg/L |
|------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|-----------------------|-----------------------|------------------------------------------------------|----------------------|--------------------|-----------------------|----------------------|---------------------------|----------|
| 3-4                                                                                                                          | 11/6/2024     | 8.2       | 0.00112               | 0.00206               | <0.00050                                             | <0.00050             | 0.000162           | <0.0000050            | 0.00848              | 0.002                     | <3.0     |
| 3-4                                                                                                                          | 11/13/2024    | 8.2       | 0.00184               | 0.0029                | <0.00050                                             | <0.00050             | 0.000214           | <0.0000050            | 0.00806              | 0.0026                    | 5        |
| 3-16 (Duplicate of 3-4)                                                                                                      | 11/13/2024    | 8.25      | 0.00179               | 0.00284               | <0.00050                                             | <0.00050             | 0.000203           | <0.0000050            | 0.0078               | 0.0025                    | 3.6      |
| RPD (3-4 vs 3-16, Nov 13)                                                                                                    |               | 0.61      | 2.75                  | 2.09                  | n/a                                                  | n/a                  | 5.28               | n/a                   | 3.28                 | 3.92                      | 32.56    |
| 3-14 (Field Blank)                                                                                                           | 11/13/2024    | 5.32      | <0.00010              | <0.0000050            | <0.00050                                             | <0.00050             | <0.000050          | <0.0000050            | <0.00050             | <0.0010                   | <3.0     |
| Max Average Concentration                                                                                                    |               | 8.20      | 0.0015                | 0.0025                | n/a                                                  | n/a                  | 0.0002             | n/a                   | 0.0083               | 0.0023                    | 5        |
| EQC Max Avg                                                                                                                  |               | 6.0 - 9.5 | 0.5                   | 0.005                 | 0.15                                                 | 0.1                  | 0.15               | 0.02                  | 0.2                  | 0.4                       | 15       |
| EQC Max Grab                                                                                                                 |               |           | 1                     | 0.01                  | 0.3                                                  | 0.2                  | 0.3                | 0.04                  | 0.4                  | 0.8                       | 30       |
| Missing data represented by the pound sign (#). Not required represented by hyphen (-). Not applicable represented by (n/a). |               |           |                       |                       | Gray shaded and bold text indicate exceedance of EQC |                      |                    |                       |                      |                           |          |

Graphical summaries comparing analytical results from the SNP samples collected at the point of compliance (SNP station 3-4) over the previous three years can be found in Appendix B. There were no exceedances of the EQC criteria during this reporting period. Complete laboratory results and COCs can be found in Appendix F.

Table 3 provides a summary of select SNP laboratory data for all stations sampled during the reporting period.

**Table 3**

| SNP Station                                                                                                                  | Sampling Date | Hardness<br>(as CaCO <sub>3</sub> )<br>mg/L | pH   | Conductivity<br>µS/cm | Sulfate<br>(SO <sub>4</sub> ) mg/L | DOC mg/L | Arsenic<br>total mg/L | Cadmium<br>total mg/L | Chromium<br>total mg/L | Copper<br>total mg/L                                 | Iron total<br>mg/L | Lead total<br>mg/L | Mercury<br>total mg/L | Nickel total<br>mg/L | Zinc total<br>mg/L | Zinc<br>dissolved<br>mg/L | TDS mg/L | TSS mg/L |
|------------------------------------------------------------------------------------------------------------------------------|---------------|---------------------------------------------|------|-----------------------|------------------------------------|----------|-----------------------|-----------------------|------------------------|------------------------------------------------------|--------------------|--------------------|-----------------------|----------------------|--------------------|---------------------------|----------|----------|
| 3-4                                                                                                                          | 11/6/2024     | 710                                         | 8.2  | 1210                  | 431                                | <0.50    | 0.00112               | 0.00206               | <0.00050               | <0.00050                                             | 0.763              | 0.000162           | <0.0000050            | 0.00848              | 0.31               | 0.002                     | 974      | <3.0     |
| 3-4                                                                                                                          | 11/13/2024    | 701                                         | 8.2  | 1220                  | 439                                | <0.50    | 0.00184               | 0.0029                | <0.00050               | <0.00050                                             | 0.756              | 0.000214           | <0.0000050            | 0.00806              | 0.43               | 0.0026                    | 934      | 5        |
| 3-16 (Duplicate of 3-4)                                                                                                      | 11/13/2024    | 697                                         | 8.25 | 1210                  | 437                                | 1.4      | 0.00179               | 0.00284               | <0.00050               | <0.00050                                             | 0.728              | 0.000203           | <0.0000050            | 0.0078               | 0.382              | 0.0025                    | 995      | 3.6      |
| RPD (3-4 vs 3-16)                                                                                                            |               | 0.57                                        | 0.61 | 0.82                  | 0.46                               | 200.00   | 2.75                  | 2.09                  | n/a                    | n/a                                                  | 3.77               | 5.28               | n/a                   | 3.28                 | 11.82              | 3.92                      | 6.32     | 32.56    |
| 3-14 (Field Blank)                                                                                                           | 11/13/2024    | <0.60                                       | 5.32 | <2.0                  | <0.30                              | <0.50    | <0.00010              | <0.0000050            | <0.00050               | <0.00050                                             | <0.010             | <0.000050          | <0.0000050            | <0.00050             | <0.0030            | <0.0010                   | <10      | <3.0     |
| 3-7                                                                                                                          | 11/13/2024    | 698                                         | 8.1  | 1180                  | 428                                | 1.1      | 0.0141                | 0.024                 | <0.00050               | 0.0124                                               | 1.23               | 0.0587             | 0.000229              | 0.0095               | 3.86               | 2.54                      | 989      | 6.4      |
| 3-10                                                                                                                         | 11/13/2024    | 306                                         | 8.35 | 601                   | 130                                | 0.64     | 0.0003                | 0.0000268             | <0.00050               | <0.00050                                             | <0.010             | <0.000050          | <0.0000050            | 0.00136              | 0.0111             | 0.0095                    | 413      | <3.0     |
| 3-11                                                                                                                         | 11/13/2024    | 332                                         | 8.36 | 618                   | 138                                | <0.50    | 0.00032               | 0.0000506             | <0.00050               | <0.00050                                             | <0.010             | 0.000082           | <0.0000050            | 0.00143              | 0.0184             | 0.0141                    | 422      | <3.0     |
| 3-13                                                                                                                         | 11/13/2024    | 326                                         | 8.35 | 618                   | 138                                | 0.65     | 0.00032               | 0.0000313             | <0.00050               | <0.00050                                             | <0.010             | 0.000111           | <0.0000050            | 0.00145              | 0.0215             | 0.0179                    | 420      | <3.0     |
| Missing data represented by the pound sign (#). Not required represented by hyphen (-). Not applicable represented by (n/a). |               |                                             |      |                       |                                    |          |                       |                       |                        | Gray shaded and bold text indicate exceedance of EQC |                    |                    |                       |                      |                    |                           |          |          |

## Inspection Of Waste and Chemical Storage (Part D Section 1 (d)iii)

The results of the waste and chemical storage inspection can be found in Appendix C.

## Water Use (Part D Section 1(d)i and 1(e))

During the month of November 2024, 129.39 m<sup>3</sup> of water was withdrawn from the well (SNP station 1-1). See Table 4 for a summary of cumulative water use. The average weekly water use for November was 43.13 m<sup>3</sup>/week.

**Table 4**

| DAILY WATER USE m3/day (STATION 1-1) |        |       |       |       |       |       |        |        |
|--------------------------------------|--------|-------|-------|-------|-------|-------|--------|--------|
| Day                                  | April  | May   | June  | July  | Aug   | Sept  | Oct    | Nov    |
| 1                                    | 0.00   | 4.27  | 3.57  | 3.14  | 2.49  | 3.45  | 1.72   | 3.60   |
| 2                                    | 0.00   | 2.52  | 2.84  | 3.41  | 1.93  | 3.20  | 2.42   | 5.33   |
| 3                                    | 0.00   | 3.07  | 3.30  | 2.61  | 1.29  | 2.84  | 1.58   | 3.76   |
| 4                                    | 0.00   | 4.71  | 2.45  | 2.79  | 1.29  | 2.30  | 1.31   | 8.98   |
| 5                                    | 0.00   | 3.37  | 2.80  | 2.31  | 2.29  | 1.54  | 2.46   | 4.50   |
| 6                                    | 0.00   | 2.89  | 1.57  | 2.16  | 1.80  | 1.79  | 1.46   | 6.81   |
| 7                                    | 0.00   | 3.20  | 1.73  | 2.16  | 4.04  | 1.13  | 2.07   | 5.71   |
| 8                                    | 0.00   | 2.17  | 2.52  | 5.33  | 3.53  | 2.82  | 2.69   | 6.80   |
| 9                                    | 0.00   | 2.43  | 3.35  | 2.71  | 3.68  | 3.46  | 3.03   | 5.44   |
| 10                                   | 0.00   | 1.83  | 2.61  | 2.53  | 2.30  | 3.60  | 1.34   | 6.72   |
| 11                                   | 5.02   | 1.83  | 1.50  | 1.82  | 3.23  | 0.69  | 2.19   | 5.47   |
| 12                                   | 5.75   | 1.36  | 1.00  | 2.83  | 2.75  | 2.50  | 3.56   | 6.42   |
| 13                                   | 4.87   | 2.32  | 2.05  | 2.32  | 2.87  | 3.06  | 2.39   | 6.50   |
| 14                                   | 3.92   | 2.89  | 1.27  | 2.24  | 4.27  | 3.59  | 3.25   | 5.81   |
| 15                                   | 5.23   | 2.17  | 1.96  | 2.19  | 3.49  | 0.81  | 2.00   | 5.90   |
| 16                                   | 3.33   | 1.74  | 1.88  | 3.21  | 2.59  | 2.83  | 2.49   | 5.98   |
| 17                                   | 3.82   | 2.10  | 3.27  | 2.63  | 2.03  | 2.68  | 2.80   | 6.47   |
| 18                                   | 3.31   | 1.65  | 3.78  | 2.42  | 2.70  | 3.41  | 2.41   | 6.06   |
| 19                                   | 1.50   | 2.23  | 3.97  | 2.69  | 3.18  | 1.66  | 2.08   | 7.98   |
| 20                                   | 2.25   | 3.43  | 1.95  | 2.66  | 0.00  | 1.95  | 2.21   | 7.45   |
| 21                                   | 2.86   | 2.93  | 1.62  | 3.14  | 3.60  | 1.72  | 4.01   | 7.70   |
| 22                                   | 2.25   | 2.87  | 1.74  | 3.26  | 7.89  | 2.01  | 4.44   | -      |
| 23                                   | 1.71   | 2.48  | 2.41  | 2.82  | 3.86  | 3.09  | 3.99   | -      |
| 24                                   | 1.73   | 3.03  | 2.41  | 2.44  | 4.54  | 2.84  | 2.76   | -      |
| 25                                   | 5.00   | 2.71  | 2.35  | 2.84  | 3.41  | 2.01  | 6.82   | -      |
| 26                                   | 3.00   | 2.80  | 2.60  | 2.70  | 7.01  | 2.78  | 5.31   | -      |
| 27                                   | 2.81   | 1.79  | 2.62  | 2.84  | 3.12  | 2.00  | 7.23   | -      |
| 28                                   | 2.54   | 1.87  | 3.68  | 2.88  | 2.81  | 2.34  | 6.64   | -      |
| 29                                   | 2.54   | 1.89  | 1.99  | 1.37  | 3.43  | 3.19  | 21.37  | -      |
| 30                                   | 4.92   | 2.05  | 2.58  | 2.50  | 2.55  | 2.95  | 12.55  | -      |
| 31                                   | -      | 2.46  | -     | 1.58  | 3.15  | -     | 2.84   | -      |
| Avg Weekly Total m3                  | 23.92  | 17.85 | 17.12 | 18.64 | 21.93 | 17.33 | 27.86  | 43.13  |
| Monthly Total m3                     | 68.34  | 79.07 | 73.38 | 82.53 | 97.12 | 74.26 | 123.40 | 129.39 |
| Yearly Total m <sup>3</sup>          | 727.49 |       |       |       |       |       |        |        |



### Calibration of Flow Monitoring Devices (Part D Section 1(c))

The flow meter on the well house (Station 1-1) supplying potable water has not been checked for calibration and is assumed to be functioning properly based on the consistency of readings.

Flow at SNP station 3-4 is measured with a rectangular notch weir at the outfall of the polishing pond. The notch weir has been measured and the flow calculations have been confirmed. See table 5 for discharge volumes.

**Table 5**

| Discharge from Polishing Pond (Station 3-4) |          |        |
|---------------------------------------------|----------|--------|
| Nov-24                                      | Flow L/s | m3/day |
| 1                                           | 3.3      | 285.12 |
| 2                                           | 3.3      | 285.12 |
| 3                                           | 3.3      | 285.12 |
| 4                                           | 3.3      | 285.12 |
| 5                                           | 3.05     | 263.52 |
| 6                                           | 2.8      | 241.92 |
| 7                                           | 2.55     | 220.32 |
| 8                                           | 2.3      | 198.72 |
| 9                                           | 2.3      | 198.72 |
| 10                                          | 2.1      | 181.44 |
| 11                                          | 1.9      | 164.16 |
| 12                                          | 1.9      | 164.16 |
| 13                                          | 1.15     | 99.36  |
| 14                                          | -        | -      |
| 15                                          | -        | -      |
| 16                                          | -        | -      |
| 17                                          | -        | -      |
| 18                                          | -        | -      |
| 19                                          | -        | -      |
| 20                                          | -        | -      |
| 21                                          | -        | -      |
| 22                                          | -        | -      |
| 23                                          | -        | -      |
| 24                                          | -        | -      |
| 25                                          | -        | -      |
| 26                                          | -        | -      |
| 27                                          | -        | -      |
| 28                                          | -        | -      |
| 29                                          | -        | -      |
| 30                                          | -        | -      |
| 31                                          | -        | -      |
| Total volume m3                             |          | 2872.8 |

### Mine Water (Part D Section 1)

Mine water was sampled on November 13<sup>th</sup> at the 870 Portal (SNP Station 3-7) and had a total zinc concentration of 3.86 mg/L, dissolved zinc concentration was 2.54 mg/L.

Discharge from the Polishing Pond began on July 17<sup>th</sup> and averaged 220.98 m<sup>3</sup>/day for the month of November with a total of 2872.8 m<sup>3</sup> for the month, see table 5. Laboratory data can be found in Tables 2 & 3 and Appendix F.

### Water Treatment (Part D Section 1)

Treatment of water from the 870 portal commenced on June 27<sup>th</sup> with discharge from the Polishing Pond beginning on July 17<sup>th</sup> and water treatment ended on November 13<sup>th</sup>. Dissolved zinc data for Station 3-4 and the other EQC parameters are shown in Table 2. The water treatment system is being operated as in previous years though the Na<sub>2</sub>S mixing and dosing building has been replaced with a new building & tanks. See table 5 for daily discharge volumes from the polishing pond.

### Site Discharge (Part D Section 1(d)ii)

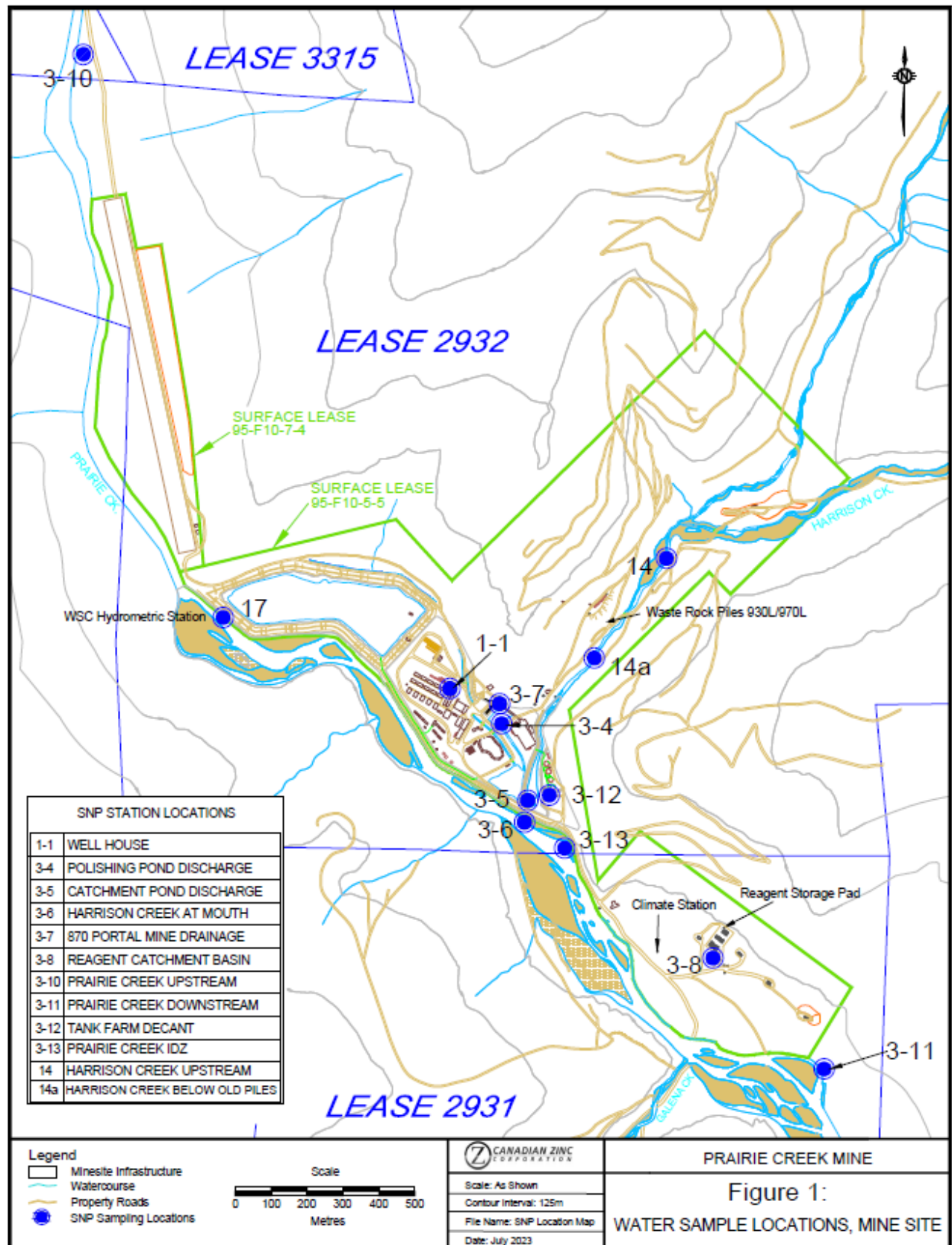
Monthly SNP sampling took place on November 13<sup>th</sup> however both the Catchment Pond discharge (Station 3-5) and Harrison Creek at Prairie Creek (Station 3-6) were not sampled due to them being frozen and unsafe to attempt sampling.

### Receiving Water (Part D Section 1)

Samples were collected from Prairie Creek upstream of the site (SNP 3-10), approximately 100 m downstream from the Harrison Creek junction (SNP 3-13), and approximately 1 km downstream from the Harrison Creek junction (SNP 3-11) on November 13<sup>th</sup>. Total zinc and dissolved zinc concentrations from up to downstream were SNP 3-10 0.0111 mg/L and 0.0095 mg/L, SNP 3-13 0.0215 mg/L and 0.0179 mg/L, and SNP 3-11 0.0184 mg/L and 0.0141 mg/L. See Appendix F for full laboratory results.



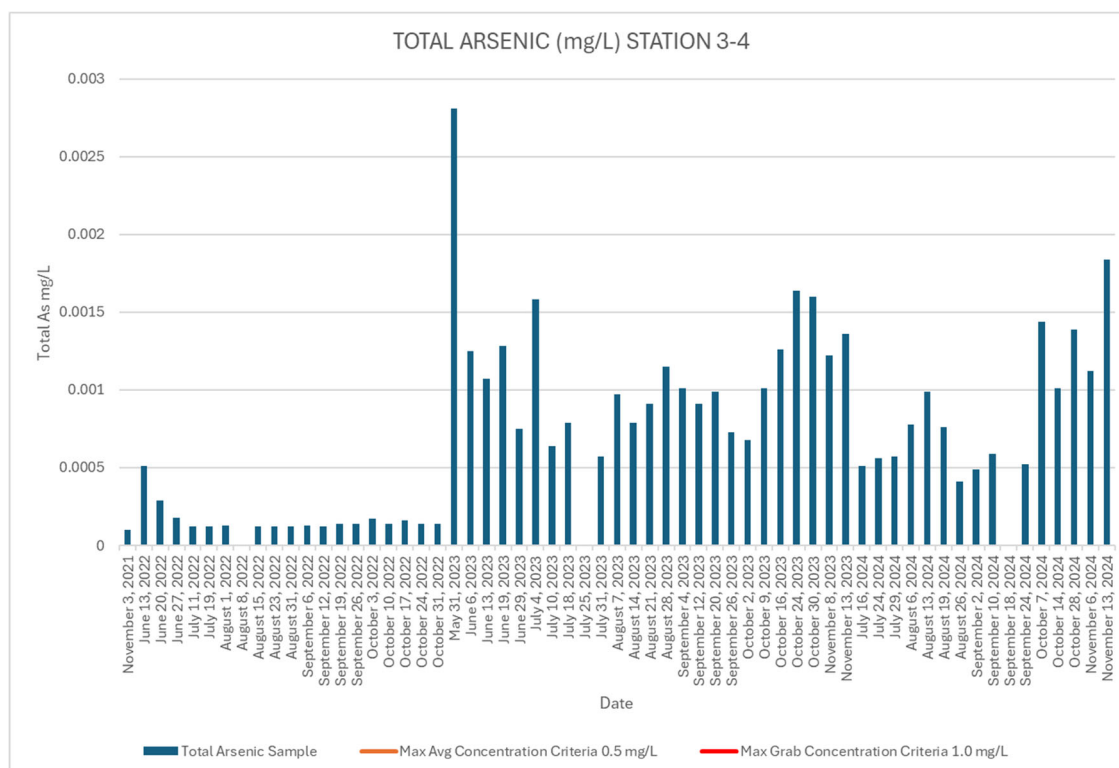
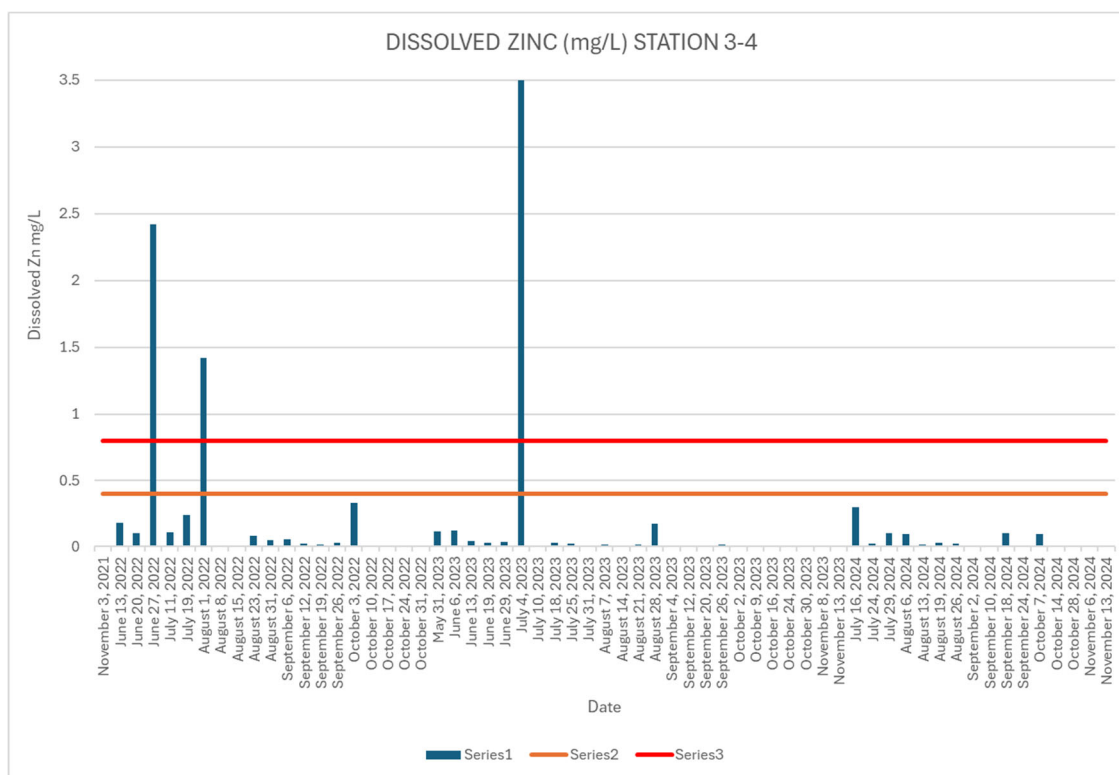
## APPENDIX A – SNP LOCATIONS

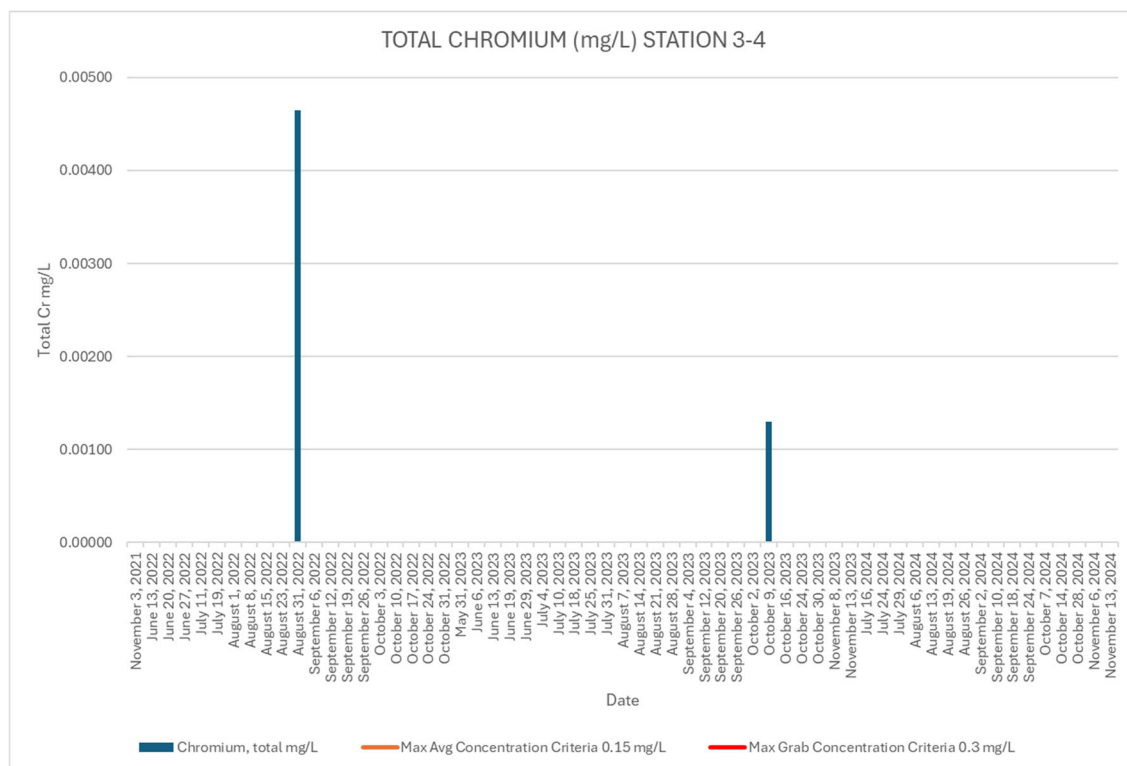
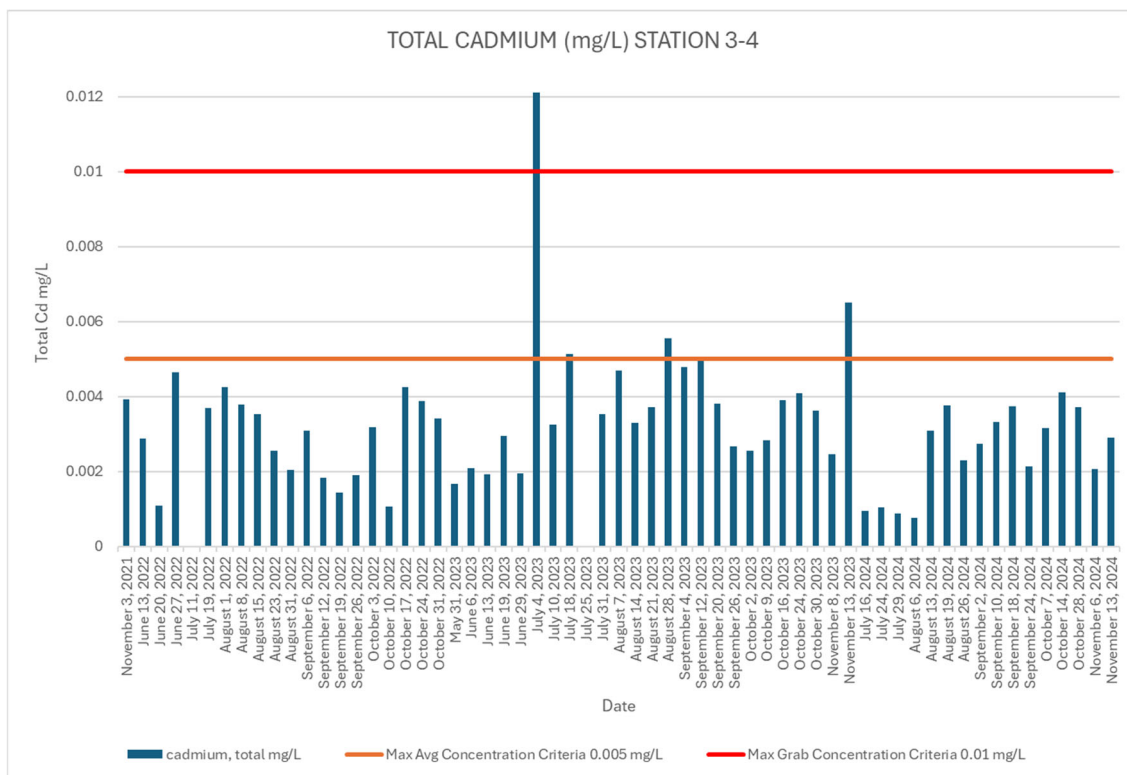


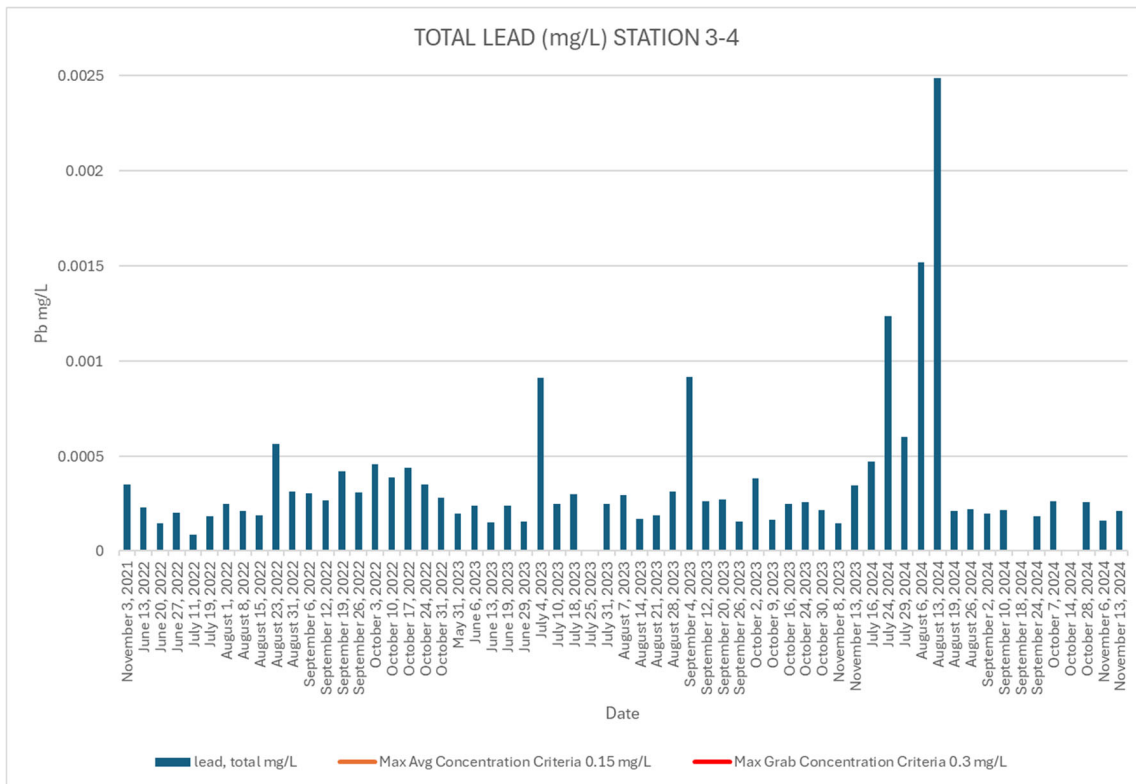
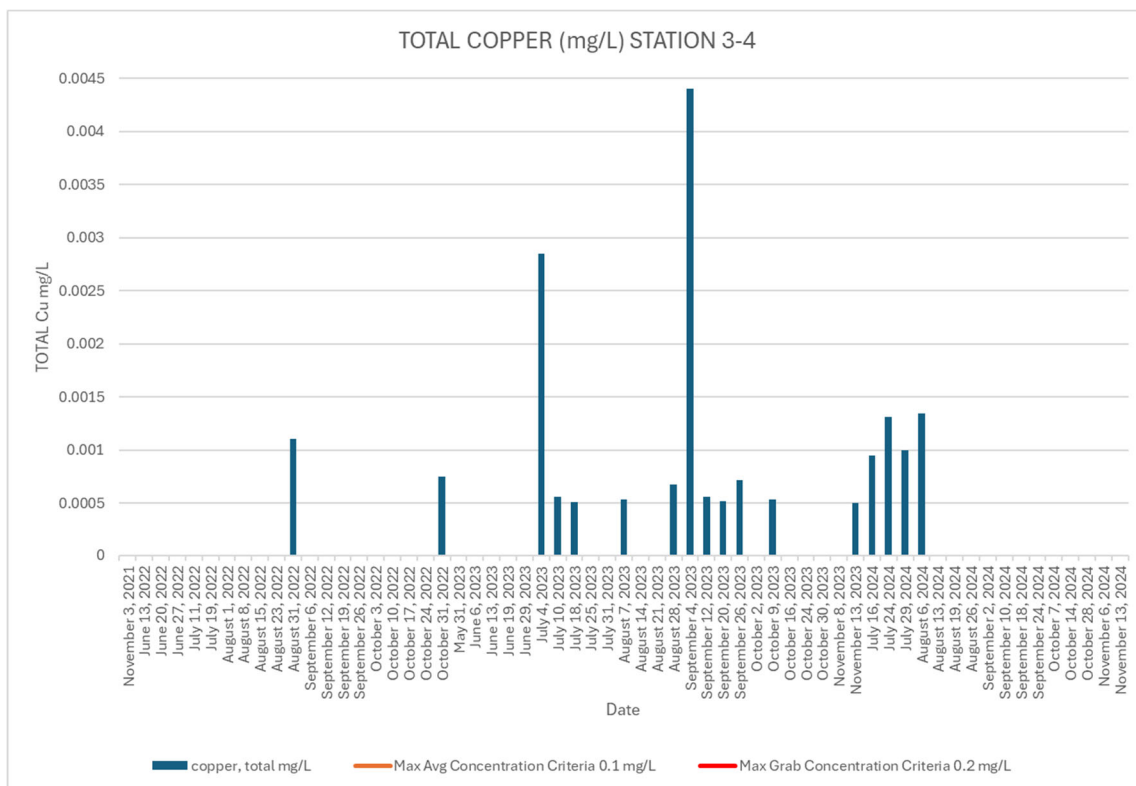


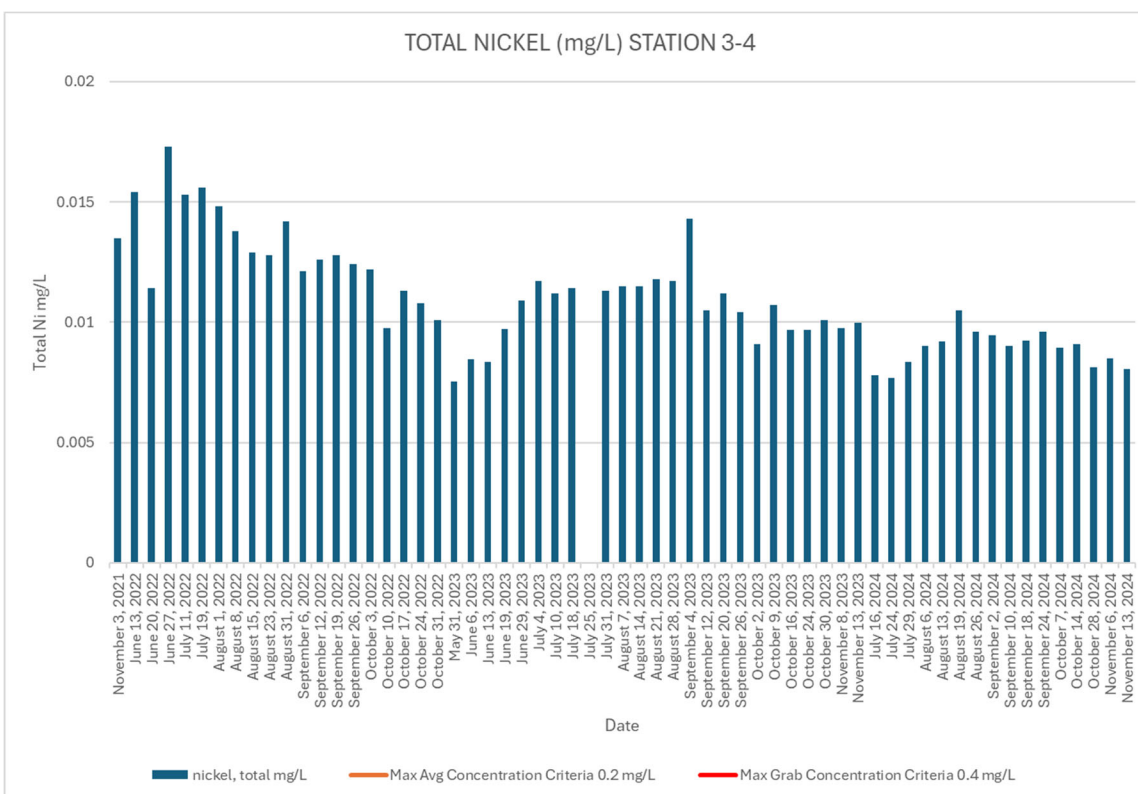
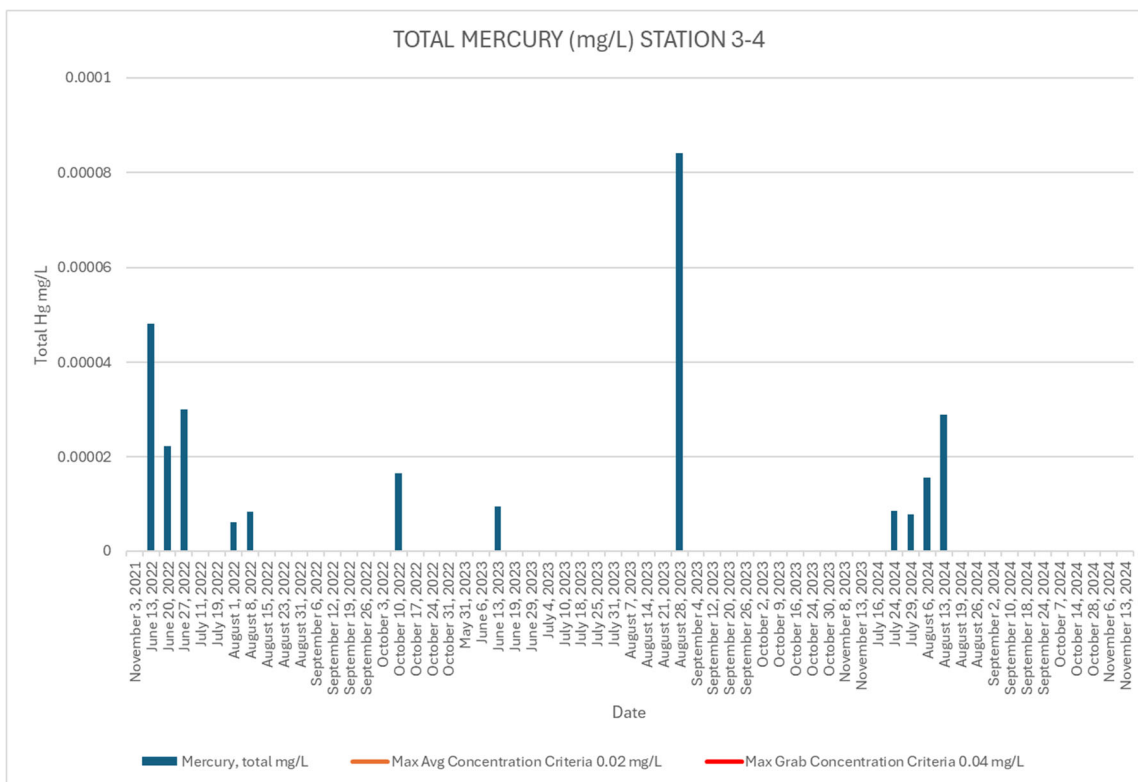
**NORZINC**  
A PREMIUM MINE DEVELOPER

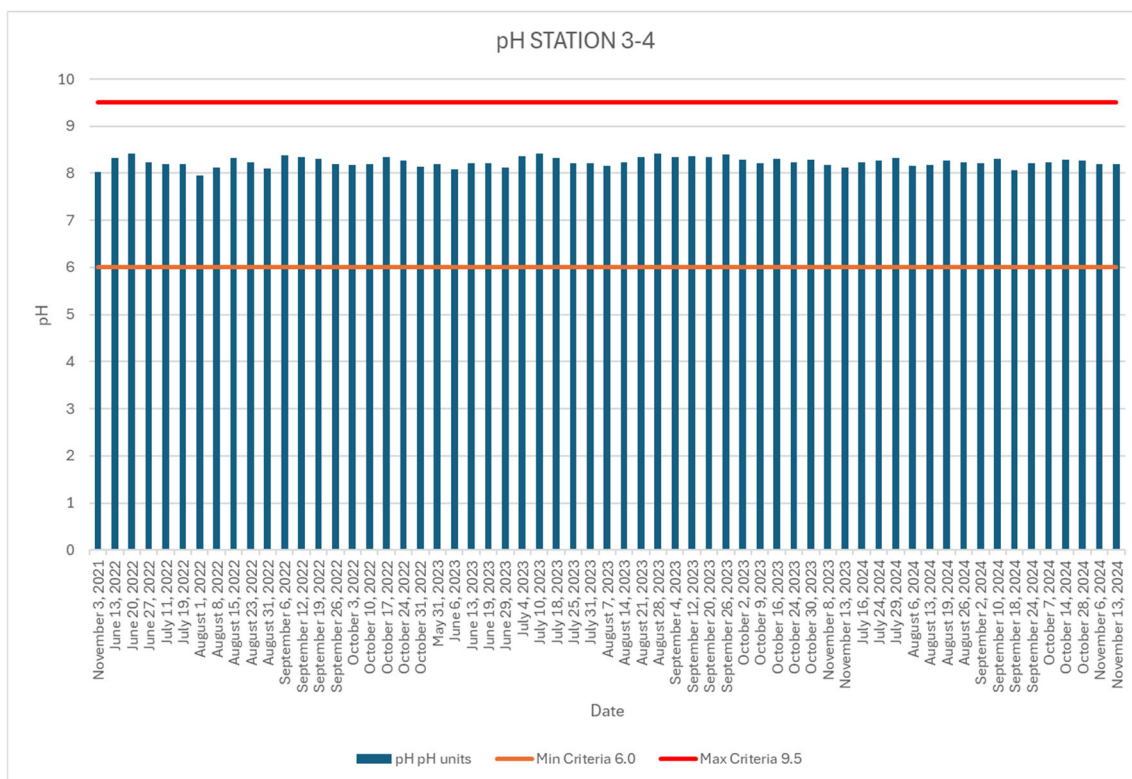
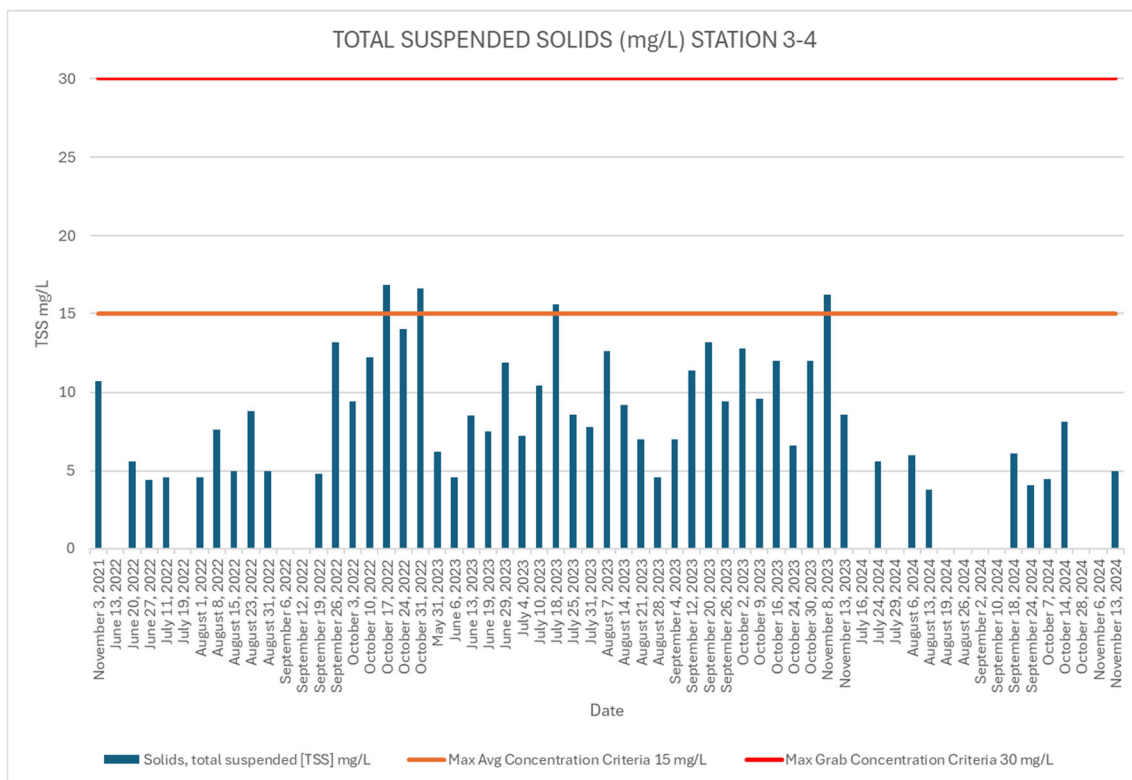
## APPENDIX B – GRAPHICAL SUMMARIES OF WATER SAMPLE DATA









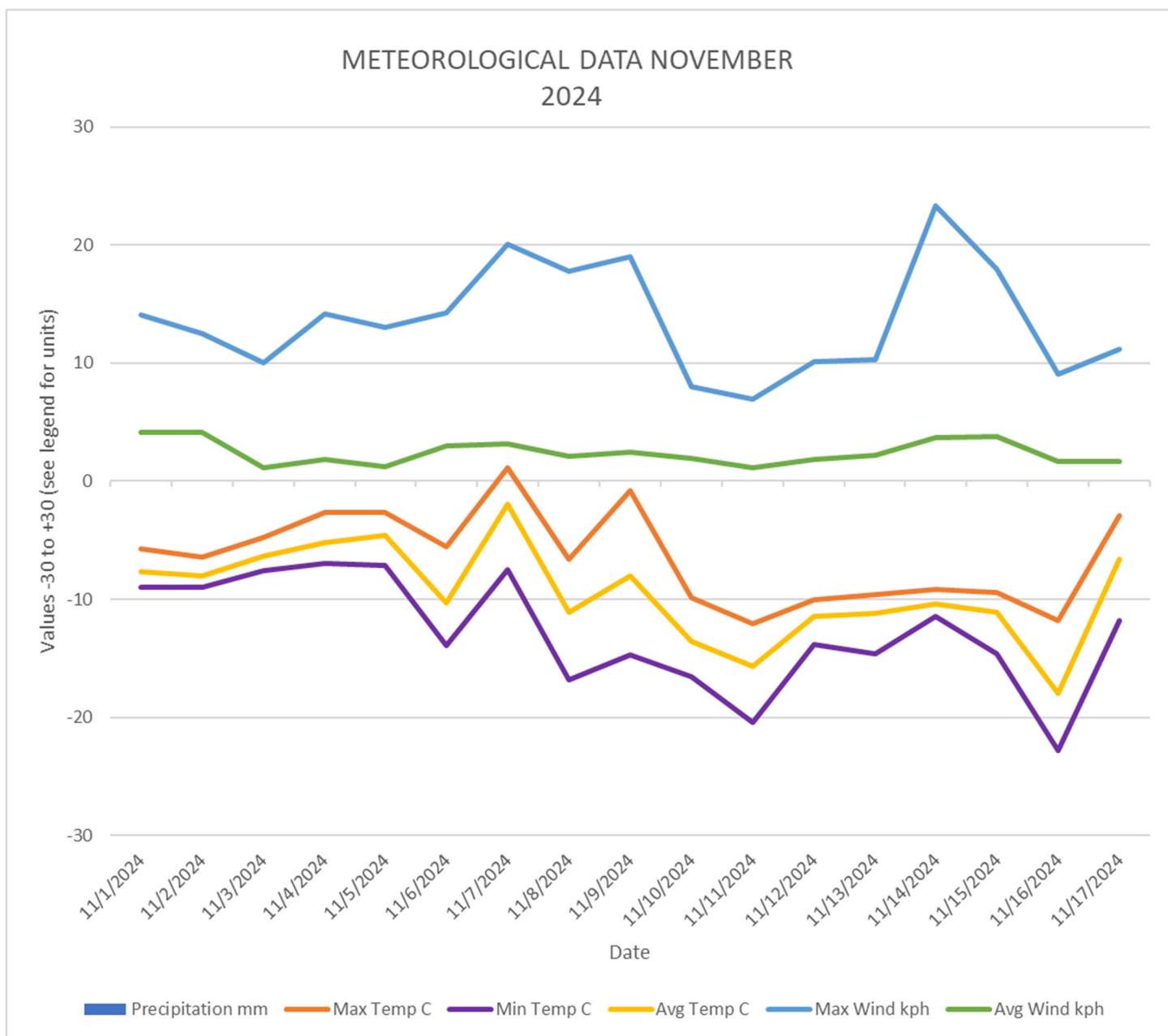




## APPENDIX C – METEOROLOGICAL DATA

Meteorological Data November 2024 (Final 2024 download November 17th)

| Date                 | Precipitation mm | Max Temp C         | Min Temp C | Avg Temp C   | Max Wind kph       | Avg Wind kph |
|----------------------|------------------|--------------------|------------|--------------|--------------------|--------------|
| 11/1/2024            | 0                | -5.76              | -8.96      | -7.66        | 14.04              | 4.09         |
| 11/2/2024            | 0                | -6.43              | -9.01      | -7.99        | 12.49              | 4.13         |
| 11/3/2024            | 0                | -4.78              | -7.61      | -6.37        | 10.02              | 1.17         |
| 11/4/2024            | 0                | -2.67              | -6.96      | -5.20        | 14.18              | 1.85         |
| 11/5/2024            | 0                | -2.67              | -7.15      | -4.62        | 12.98              | 1.26         |
| 11/6/2024            | 0                | -5.53              | -13.90     | -10.34       | 14.25              | 2.97         |
| 11/7/2024            | 0                | 1.12               | -7.51      | -1.97        | 20.04              | 3.12         |
| 11/8/2024            | 0                | -6.61              | -16.82     | -11.10       | 17.78              | 2.09         |
| 11/9/2024            | 0                | -0.82              | -14.68     | -8.02        | 18.98              | 2.46         |
| 11/10/2024           | 0                | -9.85              | -16.53     | -13.55       | 7.97               | 1.93         |
| 11/11/2024           | 0                | -12.03             | -20.41     | -15.70       | 6.99               | 1.09         |
| 11/12/2024           | 0                | -10.07             | -13.80     | -11.43       | 10.09              | 1.81         |
| 11/13/2024           | 0                | -9.63              | -14.59     | -11.22       | 10.30              | 2.15         |
| 11/14/2024           | 0                | -9.16              | -11.45     | -10.35       | 23.28              | 3.68         |
| 11/15/2024           | 0                | -9.43              | -14.60     | -11.14       | 17.92              | 3.74         |
| 11/16/2024           | 0                | -11.84             | -22.76     | -17.94       | 9.03               | 1.66         |
| 11/17/2024           | 0                | -2.93              | -11.83     | -6.64        | 11.15              | 1.69         |
| <b>Monthly Total</b> | <b>0</b>         | <b>Monthly Avg</b> |            | <b>-9.48</b> | <b>Monthly Avg</b> | <b>2.41</b>  |





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## APPENDIX D – INSPECTION LOG WASTE/CHEMICAL STORAGE



| MONTHLY INSPECTION LOG - PRAIRIE CREEK MINE SITE Page 1 of 1 |              |                            |
|--------------------------------------------------------------|--------------|----------------------------|
| AREA                                                         | CONDITION    | COMMENTS/ACTIONS           |
| <b>Airfield</b>                                              |              |                            |
| Fuel Drums                                                   | Good         |                            |
| Runway                                                       | Good         |                            |
| Loading Area                                                 | Good         |                            |
| PC Berm                                                      | Good         |                            |
| <b>Mill</b>                                                  |              |                            |
| Chemical Storage                                             | Acceptable   | Soda ash pile is unstable. |
| Used oil, lube, solvent                                      | Acceptable   |                            |
| Building Secured from Wildlife                               | Acceptable   |                            |
| Harrison Creek Berms                                         | Good         |                            |
| <b>Main Yard</b>                                             |              |                            |
| Chemical Storage                                             | Acceptable   |                            |
| Hydrocarbon Storage                                          | Acceptable   |                            |
| Vehicles and Drip Trays                                      | Good         |                            |
| Incinerator                                                  | Excellent    |                            |
| Ash Storage                                                  | Good         |                            |
| Out Buildings/Trailers                                       | Acceptable   |                            |
| PC Berm from Fuel Farm to Main Pond                          | Good         |                            |
| <b>Cold Storage</b>                                          |              |                            |
| Chemicals                                                    | n/a          |                            |
| Vehicles                                                     | Good         |                            |
| Other                                                        | Good         |                            |
| <b>Tank Farm</b>                                             |              |                            |
| Leaks                                                        | None         |                            |
| Used oil storage                                             | Good         |                            |
| Other                                                        |              |                            |
| <b>Machine Shop/Garage</b>                                   |              |                            |
| Leaks                                                        | Good         |                            |
| Used fluids storage                                          | Good         |                            |
| Other                                                        | n/a          |                            |
| <b>Water Treatment System</b>                                |              |                            |
| 870 Portal                                                   | Good         |                            |
| Chemical storage                                             | Good         |                            |
| Mixing and dosing equipment                                  | Good         |                            |
| Polishing Pond                                               | Good         |                            |
| Catchment Pond                                               | Good         |                            |
| Other                                                        | n/a          |                            |
| <b>Main Water Storage Pond</b>                               |              |                            |
| PC Berm                                                      | Good         |                            |
| Inside slopes                                                | Good         |                            |
| Outside slopes                                               | Good         |                            |
| Other                                                        | n/a          |                            |
| <b>Bone Yard</b>                                             |              |                            |
| Anything of note                                             | No concerns. |                            |
| <b>Reagent Pad and Area</b>                                  |              |                            |
| Road                                                         | Good         |                            |
| Culverts                                                     | Good         |                            |
| Chemical Storage                                             | Acceptable   |                            |
| Magazines                                                    | Good         |                            |
| Metal Disposal                                               | n/a          |                            |
| Other                                                        | n/a          |                            |
| Date of Inspection: November 15, 2024                        |              | Inspector: Andrew Howton   |



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## APPENDIX E – LABORATORY RESULTS AND COCs

## CERTIFICATE OF ANALYSIS

|                                |                                                                         |                                |                                        |
|--------------------------------|-------------------------------------------------------------------------|--------------------------------|----------------------------------------|
| <b>Work Order</b>              | <b>: FJ2403426</b>                                                      |                                |                                        |
| <b>Client</b>                  | <b>: NorZinc Ltd.</b>                                                   | <b>Laboratory</b>              | <b>: ALS Environmental - Vancouver</b> |
| <b>Contact</b>                 | <b>: Andrew Howton</b>                                                  | <b>Account Manager</b>         | <b>: Thomas Chang</b>                  |
| <b>Address</b>                 | <b>: 510 Burrard St. Suite 907</b>                                      | <b>Address</b>                 | <b>: 8081 Lougheed Highway</b>         |
|                                | <b>: Vancouver British Columbia Canada V6C 3A8</b>                      |                                | <b>: Burnaby BC Canada V5A 1W9</b>     |
| <b>Telephone</b>               | <b>: ----</b>                                                           | <b>Telephone</b>               | <b>: +1 604 253 4188</b>               |
| <b>Project</b>                 | <b>: ----</b>                                                           | <b>Date Samples Received</b>   | <b>: 08-Nov-2024 10:30</b>             |
| <b>PO</b>                      | <b>: ----</b>                                                           | <b>Date Analysis Commenced</b> | <b>: 09-Nov-2024</b>                   |
| <b>C-O-C number</b>            | <b>: CZNNOV072024</b>                                                   | <b>Issue Date</b>              | <b>: 18-Nov-2024 09:27</b>             |
| <b>Sampler</b>                 | <b>: ----</b>                                                           |                                |                                        |
| <b>Site</b>                    | <b>: Canadian Zinc Water License Surveillance Network Program (SNP)</b> |                                |                                        |
| <b>Quote number</b>            | <b>: VA24-NORZ100-001</b>                                               |                                |                                        |
| <b>No. of samples received</b> | <b>: 1</b>                                                              |                                |                                        |
| <b>No. of samples analysed</b> | <b>: 1</b>                                                              |                                |                                        |

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

### Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

| <i>Signatories</i> | <i>Position</i>      | <i>Laboratory Department</i>          |
|--------------------|----------------------|---------------------------------------|
| Angela Ren         | Team Leader - Metals | Metals, Burnaby, British Columbia     |
| Angelo Salandanan  | Lab Assistant        | Metals, Burnaby, British Columbia     |
| Monica Ko          | Lab Assistant        | Inorganics, Burnaby, British Columbia |
| Owen Cheng         |                      | Metals, Burnaby, British Columbia     |



## General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key: CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.  
LOR: Limit of Reporting (detection limit).

| Unit     | Description                 |
|----------|-----------------------------|
| mg/L     | milligrams per litre        |
| pH units | pH units                    |
| µS/cm    | microsiemens per centimetre |
| -        | no units                    |

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

## Sample Comments

| Sample        | Client Id | Comment                                                                                                                                |
|---------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------|
| FJ2403426-001 | 3-4       | Water sample for total mercury analysis was not submitted in glass or PTFE container with HCl preservative. Results may be biased low. |

## Qualifiers

| Qualifier | Description                                                                                            |
|-----------|--------------------------------------------------------------------------------------------------------|
| DLDS      | Detection Limit Raised: Dilution required due to high Dissolved Solids / Electrical Conductivity.      |
| DLM       | Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity). |



Work Order : FJ2403426  
Client : NorZinc Ltd.  
Project : ----





## Analytical Results

Sub-Matrix: Water

(Matrix: Water)

| Client sample ID                                    |            |               |        |          | 3-4                     | ---- | ---- | ---- | ---- |
|-----------------------------------------------------|------------|---------------|--------|----------|-------------------------|------|------|------|------|
| Client sampling date / time                         |            |               |        |          | 06-Nov-2024 09:00       | ---- | ---- | ---- | ---- |
| Analyte                                             | CAS Number | Method/Lab    | LOR    | Unit     | FJ2403426-001           | ---- | ---- | ---- | ---- |
| Result                                              |            |               |        |          | ----                    | ---- | ---- | ---- | ---- |
| Physical Tests                                      |            |               |        |          |                         |      |      |      |      |
| Alkalinity, bicarbonate (as CaCO <sub>3</sub> )     | ----       | E290/VA       | 1.0    | mg/L     | 291                     | ---- | ---- | ---- | ---- |
| Alkalinity, carbonate (as CaCO <sub>3</sub> )       | ----       | E290/VA       | 1.0    | mg/L     | <1.0                    | ---- | ---- | ---- | ---- |
| Alkalinity, hydroxide (as CaCO <sub>3</sub> )       | ----       | E290/VA       | 1.0    | mg/L     | <1.0                    | ---- | ---- | ---- | ---- |
| Alkalinity, phenolphthalein (as CaCO <sub>3</sub> ) | ----       | E290/VA       | 1.0    | mg/L     | <1.0                    | ---- | ---- | ---- | ---- |
| Alkalinity, total (as CaCO <sub>3</sub> )           | ----       | E290/VA       | 1.0    | mg/L     | 291                     | ---- | ---- | ---- | ---- |
| Conductivity                                        | ----       | E100/VA       | 2.0    | µS/cm    | 1210                    | ---- | ---- | ---- | ---- |
| Hardness (as CaCO <sub>3</sub> ), from total Ca/Mg  | ----       | EC100A/VA     | 0.60   | mg/L     | 710                     | ---- | ---- | ---- | ---- |
| pH                                                  | ----       | E108/VA       | 0.10   | pH units | 8.20                    | ---- | ---- | ---- | ---- |
| Solids, total dissolved [TDS]                       | ----       | E162/VA       | 10     | mg/L     | 974                     | ---- | ---- | ---- | ---- |
| Solids, total suspended [TSS]                       | ----       | E160/VA       | 3.0    | mg/L     | <3.0                    | ---- | ---- | ---- | ---- |
| Anions and Nutrients                                |            |               |        |          |                         |      |      |      |      |
| Bromide                                             | 24959-67-9 | E235.Br-L/VA  | 0.050  | mg/L     | <0.250 <sup>DLDS</sup>  | ---- | ---- | ---- | ---- |
| Chloride                                            | 16887-00-6 | E235.Cl/VA    | 0.50   | mg/L     | <2.50 <sup>DLDS</sup>   | ---- | ---- | ---- | ---- |
| Fluoride                                            | 16984-48-8 | E235.F/VA     | 0.020  | mg/L     | <0.100 <sup>DLDS</sup>  | ---- | ---- | ---- | ---- |
| Nitrate (as N)                                      | 14797-55-8 | E235.NO3-L/VA | 0.0050 | mg/L     | 0.126                   | ---- | ---- | ---- | ---- |
| Nitrite (as N)                                      | 14797-65-0 | E235.NO2-L/VA | 0.0010 | mg/L     | <0.0050 <sup>DLDS</sup> | ---- | ---- | ---- | ---- |
| Sulfate (as SO <sub>4</sub> )                       | 14808-79-8 | E235.SO4/VA   | 0.30   | mg/L     | 431                     | ---- | ---- | ---- | ---- |
| Organic / Inorganic Carbon                          |            |               |        |          |                         |      |      |      |      |
| Carbon, dissolved organic [DOC]                     | ----       | E358-L/VA     | 0.50   | mg/L     | <0.50                   | ---- | ---- | ---- | ---- |
| Total Metals                                        |            |               |        |          |                         |      |      |      |      |
| Aluminum, total                                     | 7429-90-5  | E420/VA       | 0.0030 | mg/L     | <0.0030                 | ---- | ---- | ---- | ---- |



## Analytical Results

Sub-Matrix: Water

(Matrix: Water)

|                   |            |            |           |      | Client sample ID            | 3-4               | ---- | ---- | ---- | ---- |
|-------------------|------------|------------|-----------|------|-----------------------------|-------------------|------|------|------|------|
|                   |            |            |           |      | Client sampling date / time | 06-Nov-2024 09:00 | ---- | ---- | ---- | ---- |
| Analyte           | CAS Number | Method/Lab | LOR       | Unit | FJ2403426-001               | ----              | ---- | ---- | ---- | ---- |
|                   |            |            |           |      |                             | Result            | ---- | ---- | ---- | ---- |
| Total Metals      |            |            |           |      |                             |                   |      |      |      |      |
| Antimony, total   | 7440-36-0  | E420/VA    | 0.00010   | mg/L | 0.0259                      | ----              | ---- | ---- | ---- | ---- |
| Arsenic, total    | 7440-38-2  | E420/VA    | 0.00010   | mg/L | 0.00112                     | ----              | ---- | ---- | ---- | ---- |
| Barium, total     | 7440-39-3  | E420/VA    | 0.00010   | mg/L | 0.0219                      | ----              | ---- | ---- | ---- | ---- |
| Beryllium, total  | 7440-41-7  | E420/VA    | 0.000100  | mg/L | <0.000100                   | ----              | ---- | ---- | ---- | ---- |
| Bismuth, total    | 7440-69-9  | E420/VA    | 0.000050  | mg/L | <0.000050                   | ----              | ---- | ---- | ---- | ---- |
| Boron, total      | 7440-42-8  | E420/VA    | 0.010     | mg/L | 0.012                       | ----              | ---- | ---- | ---- | ---- |
| Cadmium, total    | 7440-43-9  | E420/VA    | 0.0000050 | mg/L | 0.00206                     | ----              | ---- | ---- | ---- | ---- |
| Calcium, total    | 7440-70-2  | E420/VA    | 0.050     | mg/L | 153                         | ----              | ---- | ---- | ---- | ---- |
| Cesium, total     | 7440-46-2  | E420/VA    | 0.000010  | mg/L | 0.000068                    | ----              | ---- | ---- | ---- | ---- |
| Chromium, total   | 7440-47-3  | E420/VA    | 0.00050   | mg/L | <0.00050                    | ----              | ---- | ---- | ---- | ---- |
| Cobalt, total     | 7440-48-4  | E420/VA    | 0.00010   | mg/L | 0.00068                     | ----              | ---- | ---- | ---- | ---- |
| Copper, total     | 7440-50-8  | E420/VA    | 0.00050   | mg/L | <0.00050                    | ----              | ---- | ---- | ---- | ---- |
| Iron, total       | 7439-89-6  | E420/VA    | 0.010     | mg/L | 0.763                       | ----              | ---- | ---- | ---- | ---- |
| Lead, total       | 7439-92-1  | E420/VA    | 0.000050  | mg/L | 0.000162                    | ----              | ---- | ---- | ---- | ---- |
| Lithium, total    | 7439-93-2  | E420/VA    | 0.0010    | mg/L | 0.0062                      | ----              | ---- | ---- | ---- | ---- |
| Magnesium, total  | 7439-95-4  | E420/VA    | 0.0050    | mg/L | 79.7                        | ----              | ---- | ---- | ---- | ---- |
| Manganese, total  | 7439-96-5  | E420/VA    | 0.00010   | mg/L | 0.0275                      | ----              | ---- | ---- | ---- | ---- |
| Mercury, total    | 7439-97-6  | E508/VA    | 0.0000050 | mg/L | <0.0000050                  | ----              | ---- | ---- | ---- | ---- |
| Molybdenum, total | 7439-98-7  | E420/VA    | 0.000050  | mg/L | 0.00360                     | ----              | ---- | ---- | ---- | ---- |
| Nickel, total     | 7440-02-0  | E420/VA    | 0.00050   | mg/L | 0.00848                     | ----              | ---- | ---- | ---- | ---- |
| Phosphorus, total | 7723-14-0  | E420/VA    | 0.050     | mg/L | <0.050                      | ----              | ---- | ---- | ---- | ---- |



## Analytical Results

Sub-Matrix: Water

(Matrix: Water)

|                                      |            |            |          |      | Client sample ID            | 3-4               | ---- | ---- | ---- | ---- |
|--------------------------------------|------------|------------|----------|------|-----------------------------|-------------------|------|------|------|------|
|                                      |            |            |          |      | Client sampling date / time | 06-Nov-2024 09:00 | ---- | ---- | ---- | ---- |
| Analyte                              | CAS Number | Method/Lab | LOR      | Unit | FJ2403426-001               | ----              | ---- | ---- | ---- | ---- |
|                                      |            |            |          |      |                             | Result            | ---- | ---- | ---- | ---- |
| Total Metals                         |            |            |          |      |                             |                   |      |      |      |      |
| Potassium, total                     | 7440-09-7  | E420/VA    | 0.050    | mg/L | 1.75                        | ----              | ---- | ---- | ---- | ---- |
| Rubidium, total                      | 7440-17-7  | E420/VA    | 0.00020  | mg/L | 0.00208                     | ----              | ---- | ---- | ---- | ---- |
| Selenium, total                      | 7782-49-2  | E420/VA    | 0.000050 | mg/L | 0.00213                     | ----              | ---- | ---- | ---- | ---- |
| Silicon, total                       | 7440-21-3  | E420/VA    | 0.10     | mg/L | 2.57                        | ----              | ---- | ---- | ---- | ---- |
| Silver, total                        | 7440-22-4  | E420/VA    | 0.000010 | mg/L | <0.000010                   | ----              | ---- | ---- | ---- | ---- |
| Sodium, total                        | 7440-23-5  | E420/VA    | 0.050    | mg/L | 15.8                        | ----              | ---- | ---- | ---- | ---- |
| Strontium, total                     | 7440-24-6  | E420/VA    | 0.00020  | mg/L | 0.647                       | ----              | ---- | ---- | ---- | ---- |
| Sulfur, total                        | 7704-34-9  | E420/VA    | 0.50     | mg/L | 162                         | ----              | ---- | ---- | ---- | ---- |
| Tellurium, total                     | 13494-80-9 | E420/VA    | 0.00020  | mg/L | <0.00020                    | ----              | ---- | ---- | ---- | ---- |
| Thallium, total                      | 7440-28-0  | E420/VA    | 0.000010 | mg/L | 0.000018                    | ----              | ---- | ---- | ---- | ---- |
| Thorium, total                       | 7440-29-1  | E420/VA    | 0.00010  | mg/L | <0.00010                    | ----              | ---- | ---- | ---- | ---- |
| Tin, total                           | 7440-31-5  | E420/VA    | 0.00010  | mg/L | <0.00010                    | ----              | ---- | ---- | ---- | ---- |
| Titanium, total                      | 7440-32-6  | E420/VA    | 0.00030  | mg/L | <0.00225 <sup>DLM</sup>     | ----              | ---- | ---- | ---- | ---- |
| Tungsten, total                      | 7440-33-7  | E420/VA    | 0.00010  | mg/L | <0.00010                    | ----              | ---- | ---- | ---- | ---- |
| Uranium, total                       | 7440-61-1  | E420/VA    | 0.000010 | mg/L | 0.0266                      | ----              | ---- | ---- | ---- | ---- |
| Vanadium, total                      | 7440-62-2  | E420/VA    | 0.00050  | mg/L | <0.00050                    | ----              | ---- | ---- | ---- | ---- |
| Zinc, total                          | 7440-66-6  | E420/VA    | 0.0030   | mg/L | 0.310                       | ----              | ---- | ---- | ---- | ---- |
| Zirconium, total                     | 7440-67-7  | E420/VA    | 0.00020  | mg/L | <0.00020                    | ----              | ---- | ---- | ---- | ---- |
| Dissolved Metals                     |            |            |          |      |                             |                   |      |      |      |      |
| Zinc, dissolved                      | 7440-66-6  | E421/VA    | 0.0010   | mg/L | 0.0020                      | ----              | ---- | ---- | ---- | ---- |
| Dissolved metals filtration location | ----       | EP421/VA   | -        | -    | Field                       | ----              | ---- | ---- | ---- | ---- |



---

Please refer to the General Comments section for an explanation of any result qualifiers detected.

QUALITY CONTROL REPORT

|                         |                                                                  |                         |                                                                       |
|-------------------------|------------------------------------------------------------------|-------------------------|-----------------------------------------------------------------------|
| Work Order              | : FJ2403426                                                      | Page                    | : 1 of 13                                                             |
| Client                  | : NorZinc Ltd.                                                   | Laboratory              | : ALS Environmental - Fort St. John                                   |
| Contact                 | : Andrew Howton                                                  | Account Manager         | : Thomas Chang                                                        |
| Address                 | : 510 Burrard St. Suite 907<br>Vancouver BC Canada V6C 3A8       | Address                 | : 11007 Alaska Road<br>Fort St. John, British Columbia Canada V1J 6P3 |
| Telephone               | : ----                                                           | Telephone               | : +1 250 261 5517                                                     |
| Project                 | : ----                                                           | Date Samples Received   | : 08-Nov-2024 10:30                                                   |
| PO                      | : ----                                                           | Date Analysis Commenced | : 09-Nov-2024                                                         |
| C-O-C number            | : CZNNOV072024                                                   | Issue Date              | : 18-Nov-2024 09:29                                                   |
| Sampler                 | : ----                                                           |                         |                                                                       |
| Site                    | : Canadian Zinc Water License Surveillance Network Program (SNP) |                         |                                                                       |
| Quote number            | : VA24-NORZ100-001                                               |                         |                                                                       |
| No. of samples received | : 1                                                              |                         |                                                                       |
| No. of samples analysed | : 1                                                              |                         |                                                                       |

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

| Signatories       | Position             | Laboratory Department                           |
|-------------------|----------------------|-------------------------------------------------|
| Angela Ren        | Team Leader - Metals | Vancouver Metals, Burnaby, British Columbia     |
| Angelo Salandanan | Lab Assistant        | Vancouver Metals, Burnaby, British Columbia     |
| Monica Ko         | Lab Assistant        | Vancouver Inorganics, Burnaby, British Columbia |
| Owen Cheng        |                      | Vancouver Metals, Burnaby, British Columbia     |



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## General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

### Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.

CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.

DQO = Data Quality Objective.

LOR = Limit of Reporting (detection limit).

RPD = Relative Percent Difference

# = Indicates a QC result that did not meet the ALS DQO.

## Workorder Comments

---

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

---



Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

| Sub-Matrix: Water                            |                  |                                        |            |            | Laboratory Duplicate (DUP) Report |          |                 |                  |                      |                  |           |
|----------------------------------------------|------------------|----------------------------------------|------------|------------|-----------------------------------|----------|-----------------|------------------|----------------------|------------------|-----------|
| Laboratory sample ID                         | Client sample ID | Analyte                                | CAS Number | Method     | LOR                               | Unit     | Original Result | Duplicate Result | RPD(%) or Difference | Duplicate Limits | Qualifier |
| Physical Tests (QC Lot: 1759525)             |                  |                                        |            |            |                                   |          |                 |                  |                      |                  |           |
| FJ2403432-001                                | Anonymous        | Conductivity                           | ----       | E100       | 2.0                               | µS/cm    | 237             | 230              | 3.00%                | 10%              | ----      |
| Physical Tests (QC Lot: 1759526)             |                  |                                        |            |            |                                   |          |                 |                  |                      |                  |           |
| FJ2403432-001                                | Anonymous        | pH                                     | ----       | E108       | 0.10                              | pH units | 8.24            | 8.25             | 0.121%               | 4%               | ----      |
| Physical Tests (QC Lot: 1759527)             |                  |                                        |            |            |                                   |          |                 |                  |                      |                  |           |
| FJ2403432-001                                | Anonymous        | Alkalinity, bicarbonate (as CaCO3)     | ----       | E290       | 1.0                               | mg/L     | 122             | 122              | 0.328%               | 200%             | ----      |
|                                              |                  | Alkalinity, carbonate (as CaCO3)       | ----       | E290       | 1.0                               | mg/L     | <1.0            | <1.0             | 0.00%                | 200%             | ----      |
|                                              |                  | Alkalinity, hydroxide (as CaCO3)       | ----       | E290       | 1.0                               | mg/L     | <1.0            | <1.0             | 0.00%                | 200%             | ----      |
|                                              |                  | Alkalinity, phenolphthalein (as CaCO3) | ----       | E290       | 1.0                               | mg/L     | <1.0            | <1.0             | 0                    | Diff <2x LOR     | ----      |
|                                              |                  | Alkalinity, total (as CaCO3)           | ----       | E290       | 1.0                               | mg/L     | 122             | 122              | 0.328%               | 20%              | ----      |
| Physical Tests (QC Lot: 1762949)             |                  |                                        |            |            |                                   |          |                 |                  |                      |                  |           |
| FJ2403426-001                                | 3-4              | Solids, total dissolved [TDS]          | ----       | E162       | 20                                | mg/L     | 974             | 981              | 0.716%               | 20%              | ----      |
| Physical Tests (QC Lot: 1762953)             |                  |                                        |            |            |                                   |          |                 |                  |                      |                  |           |
| VA24D0265-015                                | Anonymous        | Solids, total suspended [TSS]          | ----       | E160       | 7.5                               | mg/L     | 4550            | 4500             | 1.05%                | 20%              | ----      |
| Anions and Nutrients (QC Lot: 1759528)       |                  |                                        |            |            |                                   |          |                 |                  |                      |                  |           |
| FJ2403416-008                                | Anonymous        | Sulfate (as SO4)                       | 14808-79-8 | E235.SO4   | 0.30                              | mg/L     | <0.30           | <0.30            | 0                    | Diff <2x LOR     | ----      |
| Anions and Nutrients (QC Lot: 1759529)       |                  |                                        |            |            |                                   |          |                 |                  |                      |                  |           |
| FJ2403416-008                                | Anonymous        | Nitrate (as N)                         | 14797-55-8 | E235.NO3-L | 0.0050                            | mg/L     | <0.0050         | <0.0050          | 0                    | Diff <2x LOR     | ----      |
| Anions and Nutrients (QC Lot: 1759530)       |                  |                                        |            |            |                                   |          |                 |                  |                      |                  |           |
| FJ2403416-008                                | Anonymous        | Nitrite (as N)                         | 14797-65-0 | E235.NO2-L | 0.0010                            | mg/L     | <0.0010         | <0.0010          | 0                    | Diff <2x LOR     | ----      |
| Anions and Nutrients (QC Lot: 1759531)       |                  |                                        |            |            |                                   |          |                 |                  |                      |                  |           |
| FJ2403416-008                                | Anonymous        | Fluoride                               | 16984-48-8 | E235.F     | 0.020                             | mg/L     | <0.020          | <0.020           | 0                    | Diff <2x LOR     | ----      |
| Anions and Nutrients (QC Lot: 1759532)       |                  |                                        |            |            |                                   |          |                 |                  |                      |                  |           |
| FJ2403416-008                                | Anonymous        | Chloride                               | 16887-00-6 | E235.Cl    | 0.50                              | mg/L     | <0.50           | <0.50            | 0                    | Diff <2x LOR     | ----      |
| Anions and Nutrients (QC Lot: 1759533)       |                  |                                        |            |            |                                   |          |                 |                  |                      |                  |           |
| FJ2403416-008                                | Anonymous        | Bromide                                | 24959-67-9 | E235.Br-L  | 0.050                             | mg/L     | <0.050          | <0.050           | 0                    | Diff <2x LOR     | ----      |
| Organic / Inorganic Carbon (QC Lot: 1760879) |                  |                                        |            |            |                                   |          |                 |                  |                      |                  |           |
| FJ2403426-001                                | 3-4              | Carbon, dissolved organic [DOC]        | ----       | E358-L     | 0.50                              | mg/L     | <0.50           | <0.50            | 0                    | Diff <2x LOR     | ----      |
| Total Metals (QC Lot: 1761564)               |                  |                                        |            |            |                                   |          |                 |                  |                      |                  |           |
| FJ2403426-001                                | 3-4              | Aluminum, total                        | 7429-90-5  | E420       | 0.0030                            | mg/L     | <0.0030         | <0.0030          | 0                    | Diff <2x LOR     | ----      |





| Sub-Matrix: Water                          |                  |                   |            |        | Laboratory Duplicate (DUP) Report |      |                 |                  |                      |                  |           |
|--------------------------------------------|------------------|-------------------|------------|--------|-----------------------------------|------|-----------------|------------------|----------------------|------------------|-----------|
| Laboratory sample ID                       | Client sample ID | Analyte           | CAS Number | Method | LOR                               | Unit | Original Result | Duplicate Result | RPD(%) or Difference | Duplicate Limits | Qualifier |
| Total Metals (QC Lot: 1761564) - continued |                  |                   |            |        |                                   |      |                 |                  |                      |                  |           |
| FJ2403426-001                              | 3-4              | Antimony, total   | 7440-36-0  | E420   | 0.00010                           | mg/L | 0.0259          | 0.0273           | 4.96%                | 20%              | ----      |
|                                            |                  | Arsenic, total    | 7440-38-2  | E420   | 0.00010                           | mg/L | 0.00112         | 0.00109          | 2.92%                | 20%              | ----      |
|                                            |                  | Barium, total     | 7440-39-3  | E420   | 0.00010                           | mg/L | 0.0219          | 0.0208           | 4.86%                | 20%              | ----      |
|                                            |                  | Beryllium, total  | 7440-41-7  | E420   | 0.000100                          | mg/L | <0.000100       | <0.000100        | 0                    | Diff <2x LOR     | ----      |
|                                            |                  | Bismuth, total    | 7440-69-9  | E420   | 0.000050                          | mg/L | <0.000050       | <0.000050        | 0                    | Diff <2x LOR     | ----      |
|                                            |                  | Boron, total      | 7440-42-8  | E420   | 0.010                             | mg/L | 0.012           | 0.012            | 0.00001              | Diff <2x LOR     | ----      |
|                                            |                  | Cadmium, total    | 7440-43-9  | E420   | 0.0000050                         | mg/L | 0.00206         | 0.00198          | 3.72%                | 20%              | ----      |
|                                            |                  | Calcium, total    | 7440-70-2  | E420   | 0.050                             | mg/L | 153             | 154              | 0.378%               | 20%              | ----      |
|                                            |                  | Cesium, total     | 7440-46-2  | E420   | 0.000010                          | mg/L | 0.000068        | 0.000072         | 0.000004             | Diff <2x LOR     | ----      |
|                                            |                  | Chromium, total   | 7440-47-3  | E420   | 0.00050                           | mg/L | <0.00050        | <0.00050         | 0                    | Diff <2x LOR     | ----      |
|                                            |                  | Cobalt, total     | 7440-48-4  | E420   | 0.00010                           | mg/L | 0.00068         | 0.00067          | 0.00001              | Diff <2x LOR     | ----      |
|                                            |                  | Copper, total     | 7440-50-8  | E420   | 0.00050                           | mg/L | <0.00050        | <0.00050         | 0                    | Diff <2x LOR     | ----      |
|                                            |                  | Iron, total       | 7439-89-6  | E420   | 0.010                             | mg/L | 0.763           | 0.750            | 1.59%                | 20%              | ----      |
|                                            |                  | Lead, total       | 7439-92-1  | E420   | 0.000050                          | mg/L | 0.000162        | 0.000168         | 0.000006             | Diff <2x LOR     | ----      |
|                                            |                  | Lithium, total    | 7439-93-2  | E420   | 0.0010                            | mg/L | 0.0062          | 0.0062           | 0.000007             | Diff <2x LOR     | ----      |
|                                            |                  | Magnesium, total  | 7439-95-4  | E420   | 0.0050                            | mg/L | 79.7            | 78.6             | 1.36%                | 20%              | ----      |
|                                            |                  | Manganese, total  | 7439-96-5  | E420   | 0.00010                           | mg/L | 0.0275          | 0.0267           | 2.84%                | 20%              | ----      |
|                                            |                  | Molybdenum, total | 7439-98-7  | E420   | 0.000050                          | mg/L | 0.00360         | 0.00382          | 5.76%                | 20%              | ----      |
|                                            |                  | Nickel, total     | 7440-02-0  | E420   | 0.00050                           | mg/L | 0.00848         | 0.00822          | 3.12%                | 20%              | ----      |
|                                            |                  | Phosphorus, total | 7723-14-0  | E420   | 0.050                             | mg/L | <0.050          | <0.050           | 0                    | Diff <2x LOR     | ----      |
|                                            |                  | Potassium, total  | 7440-09-7  | E420   | 0.050                             | mg/L | 1.75            | 1.66             | 5.06%                | 20%              | ----      |
|                                            |                  | Rubidium, total   | 7440-17-7  | E420   | 0.00020                           | mg/L | 0.00208         | 0.00217          | 4.43%                | 20%              | ----      |
|                                            |                  | Selenium, total   | 7782-49-2  | E420   | 0.000050                          | mg/L | 0.00213         | 0.00212          | 0.319%               | 20%              | ----      |
|                                            |                  | Silicon, total    | 7440-21-3  | E420   | 0.10                              | mg/L | 2.57            | 2.50             | 2.70%                | 20%              | ----      |
|                                            |                  | Silver, total     | 7440-22-4  | E420   | 0.000010                          | mg/L | <0.000010       | <0.000010        | 0                    | Diff <2x LOR     | ----      |
|                                            |                  | Sodium, total     | 7440-23-5  | E420   | 0.050                             | mg/L | 15.8            | 15.5             | 2.27%                | 20%              | ----      |
|                                            |                  | Strontium, total  | 7440-24-6  | E420   | 0.00020                           | mg/L | 0.647           | 0.673            | 3.90%                | 20%              | ----      |
|                                            |                  | Sulfur, total     | 7704-34-9  | E420   | 0.50                              | mg/L | 162             | 160              | 1.63%                | 20%              | ----      |
|                                            |                  | Tellurium, total  | 13494-80-9 | E420   | 0.00020                           | mg/L | <0.00020        | <0.00020         | 0                    | Diff <2x LOR     | ----      |
|                                            |                  | Thallium, total   | 7440-28-0  | E420   | 0.000010                          | mg/L | 0.000018        | 0.000019         | 0.000001             | Diff <2x LOR     | ----      |
|                                            |                  | Thorium, total    | 7440-29-1  | E420   | 0.00010                           | mg/L | <0.00010        | 0.00011          | 0.000006             | Diff <2x LOR     | ----      |
|                                            |                  | Tin, total        | 7440-31-5  | E420   | 0.00010                           | mg/L | <0.00010        | <0.00010         | 0                    | Diff <2x LOR     | ----      |
|                                            |                  | Titanium, total   | 7440-32-6  | E420   | 0.00225                           | mg/L | <0.00225        | <0.00225         | 0                    | Diff <2x LOR     | ----      |
|                                            |                  | Tungsten, total   | 7440-33-7  | E420   | 0.00010                           | mg/L | <0.00010        | <0.00010         | 0                    | Diff <2x LOR     | ----      |



| Sub-Matrix: Water                          |                  |                  |            |        | Laboratory Duplicate (DUP) Report |      |                 |                  |                      |                  |           |
|--------------------------------------------|------------------|------------------|------------|--------|-----------------------------------|------|-----------------|------------------|----------------------|------------------|-----------|
| Laboratory sample ID                       | Client sample ID | Analyte          | CAS Number | Method | LOR                               | Unit | Original Result | Duplicate Result | RPD(%) or Difference | Duplicate Limits | Qualifier |
| Total Metals (QC Lot: 1761564) - continued |                  |                  |            |        |                                   |      |                 |                  |                      |                  |           |
| FJ2403426-001                              | 3-4              | Uranium, total   | 7440-61-1  | E420   | 0.000010                          | mg/L | 0.0266          | 0.0278           | 4.43%                | 20%              | ----      |
|                                            |                  | Vanadium, total  | 7440-62-2  | E420   | 0.00050                           | mg/L | <0.00050        | <0.00050         | 0                    | Diff <2x LOR     | ----      |
|                                            |                  | Zinc, total      | 7440-66-6  | E420   | 0.0030                            | mg/L | 0.310           | 0.301            | 2.92%                | 20%              | ----      |
|                                            |                  | Zirconium, total | 7440-67-7  | E420   | 0.00020                           | mg/L | <0.00020        | <0.00020         | 0                    | Diff <2x LOR     | ----      |
| Total Metals (QC Lot: 1767533)             |                  |                  |            |        |                                   |      |                 |                  |                      |                  |           |
| FJ2403426-001                              | 3-4              | Mercury, total   | 7439-97-6  | E508   | 0.0000050                         | mg/L | <0.0000050      | <0.0000050       | 0                    | Diff <2x LOR     | ----      |
| Dissolved Metals (QC Lot: 1761725)         |                  |                  |            |        |                                   |      |                 |                  |                      |                  |           |
| FJ2403426-001                              | 3-4              | Zinc, dissolved  | 7440-66-6  | E421   | 0.0010                            | mg/L | 0.0020          | 0.0022           | 0.0002               | Diff <2x LOR     | ----      |



## Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: Water

| Analyte                                             | CAS Number | Method     | LOR     | Unit  | Result    | Qualifier |
|-----------------------------------------------------|------------|------------|---------|-------|-----------|-----------|
| <b>Physical Tests (QCLot: 1759525)</b>              |            |            |         |       |           |           |
| Conductivity                                        | ----       | E100       | 1       | µS/cm | 1.2       | ----      |
| <b>Physical Tests (QCLot: 1759527)</b>              |            |            |         |       |           |           |
| Alkalinity, bicarbonate (as CaCO <sub>3</sub> )     | ----       | E290       | 1       | mg/L  | <1.0      | ----      |
| Alkalinity, carbonate (as CaCO <sub>3</sub> )       | ----       | E290       | 1       | mg/L  | <1.0      | ----      |
| Alkalinity, hydroxide (as CaCO <sub>3</sub> )       | ----       | E290       | 1       | mg/L  | <1.0      | ----      |
| Alkalinity, phenolphthalein (as CaCO <sub>3</sub> ) | ----       | E290       | 1       | mg/L  | <1.0      | ----      |
| Alkalinity, total (as CaCO <sub>3</sub> )           | ----       | E290       | 1       | mg/L  | <1.0      | ----      |
| <b>Physical Tests (QCLot: 1762949)</b>              |            |            |         |       |           |           |
| Solids, total dissolved [TDS]                       | ----       | E162       | 10      | mg/L  | <10       | ----      |
| <b>Physical Tests (QCLot: 1762953)</b>              |            |            |         |       |           |           |
| Solids, total suspended [TSS]                       | ----       | E160       | 3       | mg/L  | <3.0      | ----      |
| <b>Anions and Nutrients (QCLot: 1759528)</b>        |            |            |         |       |           |           |
| Sulfate (as SO <sub>4</sub> )                       | 14808-79-8 | E235.SO4   | 0.3     | mg/L  | <0.30     | ----      |
| <b>Anions and Nutrients (QCLot: 1759529)</b>        |            |            |         |       |           |           |
| Nitrate (as N)                                      | 14797-55-8 | E235.NO3-L | 0.005   | mg/L  | <0.0050   | ----      |
| <b>Anions and Nutrients (QCLot: 1759530)</b>        |            |            |         |       |           |           |
| Nitrite (as N)                                      | 14797-65-0 | E235.NO2-L | 0.001   | mg/L  | <0.0010   | ----      |
| <b>Anions and Nutrients (QCLot: 1759531)</b>        |            |            |         |       |           |           |
| Fluoride                                            | 16984-48-8 | E235.F     | 0.02    | mg/L  | <0.020    | ----      |
| <b>Anions and Nutrients (QCLot: 1759532)</b>        |            |            |         |       |           |           |
| Chloride                                            | 16887-00-6 | E235.Cl    | 0.5     | mg/L  | <0.50     | ----      |
| <b>Anions and Nutrients (QCLot: 1759533)</b>        |            |            |         |       |           |           |
| Bromide                                             | 24959-67-9 | E235.Br-L  | 0.05    | mg/L  | <0.050    | ----      |
| <b>Organic / Inorganic Carbon (QCLot: 1760879)</b>  |            |            |         |       |           |           |
| Carbon, dissolved organic [DOC]                     | ----       | E358-L     | 0.5     | mg/L  | <0.50     | ----      |
| <b>Total Metals (QCLot: 1761564)</b>                |            |            |         |       |           |           |
| Aluminum, total                                     | 7429-90-5  | E420       | 0.003   | mg/L  | <0.0030   | ----      |
| Antimony, total                                     | 7440-36-0  | E420       | 0.0001  | mg/L  | <0.00010  | ----      |
| Arsenic, total                                      | 7440-38-2  | E420       | 0.0001  | mg/L  | <0.00010  | ----      |
| Barium, total                                       | 7440-39-3  | E420       | 0.0001  | mg/L  | <0.00010  | ----      |
| Beryllium, total                                    | 7440-41-7  | E420       | 0.00002 | mg/L  | <0.000020 | ----      |
| Bismuth, total                                      | 7440-69-9  | E420       | 0.00005 | mg/L  | <0.000050 | ----      |



Sub-Matrix: **Water**

| Analyte                                          | CAS Number | Method | LOR      | Unit | Result     | Qualifier |
|--------------------------------------------------|------------|--------|----------|------|------------|-----------|
| <b>Total Metals (QCLot: 1761564) - continued</b> |            |        |          |      |            |           |
| Boron, total                                     | 7440-42-8  | E420   | 0.01     | mg/L | <0.010     | ----      |
| Cadmium, total                                   | 7440-43-9  | E420   | 0.000005 | mg/L | <0.0000050 | ----      |
| Calcium, total                                   | 7440-70-2  | E420   | 0.05     | mg/L | <0.050     | ----      |
| Cesium, total                                    | 7440-46-2  | E420   | 0.00001  | mg/L | <0.000010  | ----      |
| Chromium, total                                  | 7440-47-3  | E420   | 0.0005   | mg/L | <0.00050   | ----      |
| Cobalt, total                                    | 7440-48-4  | E420   | 0.0001   | mg/L | <0.00010   | ----      |
| Copper, total                                    | 7440-50-8  | E420   | 0.0005   | mg/L | <0.00050   | ----      |
| Iron, total                                      | 7439-89-6  | E420   | 0.01     | mg/L | <0.010     | ----      |
| Lead, total                                      | 7439-92-1  | E420   | 0.00005  | mg/L | <0.000050  | ----      |
| Lithium, total                                   | 7439-93-2  | E420   | 0.001    | mg/L | <0.0010    | ----      |
| Magnesium, total                                 | 7439-95-4  | E420   | 0.005    | mg/L | <0.0050    | ----      |
| Manganese, total                                 | 7439-96-5  | E420   | 0.0001   | mg/L | <0.00010   | ----      |
| Molybdenum, total                                | 7439-98-7  | E420   | 0.00005  | mg/L | <0.000050  | ----      |
| Nickel, total                                    | 7440-02-0  | E420   | 0.0005   | mg/L | <0.00050   | ----      |
| Phosphorus, total                                | 7723-14-0  | E420   | 0.05     | mg/L | <0.050     | ----      |
| Potassium, total                                 | 7440-09-7  | E420   | 0.05     | mg/L | <0.050     | ----      |
| Rubidium, total                                  | 7440-17-7  | E420   | 0.0002   | mg/L | <0.00020   | ----      |
| Selenium, total                                  | 7782-49-2  | E420   | 0.00005  | mg/L | <0.000050  | ----      |
| Silicon, total                                   | 7440-21-3  | E420   | 0.1      | mg/L | <0.10      | ----      |
| Silver, total                                    | 7440-22-4  | E420   | 0.00001  | mg/L | <0.000010  | ----      |
| Sodium, total                                    | 7440-23-5  | E420   | 0.05     | mg/L | <0.050     | ----      |
| Strontium, total                                 | 7440-24-6  | E420   | 0.0002   | mg/L | <0.00020   | ----      |
| Sulfur, total                                    | 7704-34-9  | E420   | 0.5      | mg/L | <0.50      | ----      |
| Tellurium, total                                 | 13494-80-9 | E420   | 0.0002   | mg/L | <0.00020   | ----      |
| Thallium, total                                  | 7440-28-0  | E420   | 0.00001  | mg/L | <0.000010  | ----      |
| Thorium, total                                   | 7440-29-1  | E420   | 0.0001   | mg/L | <0.00010   | ----      |
| Tin, total                                       | 7440-31-5  | E420   | 0.0001   | mg/L | <0.00010   | ----      |
| Titanium, total                                  | 7440-32-6  | E420   | 0.0003   | mg/L | <0.00030   | ----      |
| Tungsten, total                                  | 7440-33-7  | E420   | 0.0001   | mg/L | <0.00010   | ----      |
| Uranium, total                                   | 7440-61-1  | E420   | 0.00001  | mg/L | <0.000010  | ----      |
| Vanadium, total                                  | 7440-62-2  | E420   | 0.0005   | mg/L | <0.00050   | ----      |
| Zinc, total                                      | 7440-66-6  | E420   | 0.003    | mg/L | <0.0030    | ----      |
| Zirconium, total                                 | 7440-67-7  | E420   | 0.0002   | mg/L | <0.00020   | ----      |
| <b>Total Metals (QCLot: 1767533)</b>             |            |        |          |      |            |           |
| Mercury, total                                   | 7439-97-6  | E508   | 0.000005 | mg/L | <0.0000050 | ----      |



Sub-Matrix: **Water**

| Analyte                           | CAS Number | Method | LOR   | Unit | Result  | Qualifier |
|-----------------------------------|------------|--------|-------|------|---------|-----------|
| Dissolved Metals (QCLot: 1761725) |            |        |       |      |         |           |
| Zinc, dissolved                   | 7440-66-6  | E421   | 0.001 | mg/L | <0.0010 | ----      |



Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: Water

|                                             |            |            |        |          | Laboratory Control Sample (LCS) Report |              |                     |      |           |
|---------------------------------------------|------------|------------|--------|----------|----------------------------------------|--------------|---------------------|------|-----------|
|                                             |            |            |        |          | Spike                                  | Recovery (%) | Recovery Limits (%) |      |           |
| Analyte                                     | CAS Number | Method     | LOR    | Unit     | Target Concentration                   | LCS          | Low                 | High | Qualifier |
| Physical Tests (QCLot: 1759525)             |            |            |        |          |                                        |              |                     |      |           |
| Conductivity                                | ----       | E100       | 1      | µS/cm    | 147 µS/cm                              | 99.9         | 90.0                | 110  | ----      |
| Physical Tests (QCLot: 1759526)             |            |            |        |          |                                        |              |                     |      |           |
| pH                                          | ----       | E108       | ----   | pH units | 7 pH units                             | 100          | 98.0                | 102  | ----      |
| Physical Tests (QCLot: 1759527)             |            |            |        |          |                                        |              |                     |      |           |
| Alkalinity, phenolphthalein (as CaCO3)      | ----       | E290       | 1      | mg/L     | 229 mg/L                               | 98.9         | 75.0                | 125  | ----      |
| Alkalinity, total (as CaCO3)                | ----       | E290       | 1      | mg/L     | 500 mg/L                               | 103          | 85.0                | 115  | ----      |
| Physical Tests (QCLot: 1762949)             |            |            |        |          |                                        |              |                     |      |           |
| Solids, total dissolved [TDS]               | ----       | E162       | 10     | mg/L     | 1000 mg/L                              | 98.7         | 85.0                | 115  | ----      |
| Physical Tests (QCLot: 1762953)             |            |            |        |          |                                        |              |                     |      |           |
| Solids, total suspended [TSS]               | ----       | E160       | 3      | mg/L     | 150 mg/L                               | 90.2         | 85.0                | 115  | ----      |
| Anions and Nutrients (QCLot: 1759528)       |            |            |        |          |                                        |              |                     |      |           |
| Sulfate (as SO4)                            | 14808-79-8 | E235.SO4   | 0.3    | mg/L     | 100 mg/L                               | 98.9         | 90.0                | 110  | ----      |
| Anions and Nutrients (QCLot: 1759529)       |            |            |        |          |                                        |              |                     |      |           |
| Nitrate (as N)                              | 14797-55-8 | E235.NO3-L | 0.005  | mg/L     | 2.5 mg/L                               | 98.9         | 90.0                | 110  | ----      |
| Anions and Nutrients (QCLot: 1759530)       |            |            |        |          |                                        |              |                     |      |           |
| Nitrite (as N)                              | 14797-65-0 | E235.NO2-L | 0.001  | mg/L     | 0.5 mg/L                               | 97.5         | 90.0                | 110  | ----      |
| Anions and Nutrients (QCLot: 1759531)       |            |            |        |          |                                        |              |                     |      |           |
| Fluoride                                    | 16984-48-8 | E235.F     | 0.02   | mg/L     | 1 mg/L                                 | 97.2         | 90.0                | 110  | ----      |
| Anions and Nutrients (QCLot: 1759532)       |            |            |        |          |                                        |              |                     |      |           |
| Chloride                                    | 16887-00-6 | E235.Cl    | 0.5    | mg/L     | 100 mg/L                               | 99.8         | 90.0                | 110  | ----      |
| Anions and Nutrients (QCLot: 1759533)       |            |            |        |          |                                        |              |                     |      |           |
| Bromide                                     | 24959-67-9 | E235.Br-L  | 0.05   | mg/L     | 0.5 mg/L                               | 104          | 85.0                | 115  | ----      |
| Organic / Inorganic Carbon (QCLot: 1760879) |            |            |        |          |                                        |              |                     |      |           |
| Carbon, dissolved organic [DOC]             | ----       | E358-L     | 0.5    | mg/L     | 8.57 mg/L                              | 96.5         | 80.0                | 120  | ----      |
| Total Metals (QCLot: 1761564)               |            |            |        |          |                                        |              |                     |      |           |
| Aluminum, total                             | 7429-90-5  | E420       | 0.003  | mg/L     | 2 mg/L                                 | 104          | 80.0                | 120  | ----      |
| Antimony, total                             | 7440-36-0  | E420       | 0.0001 | mg/L     | 1 mg/L                                 | 98.4         | 80.0                | 120  | ----      |
| Arsenic, total                              | 7440-38-2  | E420       | 0.0001 | mg/L     | 1 mg/L                                 | 105          | 80.0                | 120  | ----      |
| Barium, total                               | 7440-39-3  | E420       | 0.0001 | mg/L     | 0.25 mg/L                              | 102          | 80.0                | 120  | ----      |



Sub-Matrix: Water

|                                           |            |        |          |      | Laboratory Control Sample (LCS) Report |              |                     |      |           |
|-------------------------------------------|------------|--------|----------|------|----------------------------------------|--------------|---------------------|------|-----------|
|                                           |            |        |          |      | Spike                                  | Recovery (%) | Recovery Limits (%) |      |           |
| Analyte                                   | CAS Number | Method | LOR      | Unit | Target Concentration                   | LCS          | Low                 | High | Qualifier |
| Total Metals (QCLot: 1761564) - continued |            |        |          |      |                                        |              |                     |      |           |
| Beryllium, total                          | 7440-41-7  | E420   | 0.00002  | mg/L | 0.1 mg/L                               | 105          | 80.0                | 120  | ----      |
| Bismuth, total                            | 7440-69-9  | E420   | 0.00005  | mg/L | 1 mg/L                                 | 103          | 80.0                | 120  | ----      |
| Boron, total                              | 7440-42-8  | E420   | 0.01     | mg/L | 1 mg/L                                 | 97.1         | 80.0                | 120  | ----      |
| Cadmium, total                            | 7440-43-9  | E420   | 0.000005 | mg/L | 0.1 mg/L                               | 102          | 80.0                | 120  | ----      |
| Calcium, total                            | 7440-70-2  | E420   | 0.05     | mg/L | 50 mg/L                                | 101          | 80.0                | 120  | ----      |
| Cesium, total                             | 7440-46-2  | E420   | 0.00001  | mg/L | 0.05 mg/L                              | 102          | 80.0                | 120  | ----      |
| Chromium, total                           | 7440-47-3  | E420   | 0.0005   | mg/L | 0.25 mg/L                              | 101          | 80.0                | 120  | ----      |
| Cobalt, total                             | 7440-48-4  | E420   | 0.0001   | mg/L | 0.25 mg/L                              | 103          | 80.0                | 120  | ----      |
| Copper, total                             | 7440-50-8  | E420   | 0.0005   | mg/L | 0.25 mg/L                              | 97.4         | 80.0                | 120  | ----      |
| Iron, total                               | 7439-89-6  | E420   | 0.01     | mg/L | 1 mg/L                                 | 102          | 80.0                | 120  | ----      |
| Lead, total                               | 7439-92-1  | E420   | 0.00005  | mg/L | 0.5 mg/L                               | 102          | 80.0                | 120  | ----      |
| Lithium, total                            | 7439-93-2  | E420   | 0.001    | mg/L | 0.25 mg/L                              | 104          | 80.0                | 120  | ----      |
| Magnesium, total                          | 7439-95-4  | E420   | 0.005    | mg/L | 50 mg/L                                | 102          | 80.0                | 120  | ----      |
| Manganese, total                          | 7439-96-5  | E420   | 0.0001   | mg/L | 0.25 mg/L                              | 102          | 80.0                | 120  | ----      |
| Molybdenum, total                         | 7439-98-7  | E420   | 0.00005  | mg/L | 0.25 mg/L                              | 103          | 80.0                | 120  | ----      |
| Nickel, total                             | 7440-02-0  | E420   | 0.0005   | mg/L | 0.5 mg/L                               | 102          | 80.0                | 120  | ----      |
| Phosphorus, total                         | 7723-14-0  | E420   | 0.05     | mg/L | 10 mg/L                                | 112          | 80.0                | 120  | ----      |
| Potassium, total                          | 7440-09-7  | E420   | 0.05     | mg/L | 50 mg/L                                | 109          | 80.0                | 120  | ----      |
| Rubidium, total                           | 7440-17-7  | E420   | 0.0002   | mg/L | 0.1 mg/L                               | 104          | 80.0                | 120  | ----      |
| Selenium, total                           | 7782-49-2  | E420   | 0.00005  | mg/L | 1 mg/L                                 | 94.8         | 80.0                | 120  | ----      |
| Silicon, total                            | 7440-21-3  | E420   | 0.1      | mg/L | 10 mg/L                                | 97.9         | 80.0                | 120  | ----      |
| Silver, total                             | 7440-22-4  | E420   | 0.00001  | mg/L | 0.1 mg/L                               | 93.7         | 80.0                | 120  | ----      |
| Sodium, total                             | 7440-23-5  | E420   | 0.05     | mg/L | 50 mg/L                                | 104          | 80.0                | 120  | ----      |
| Strontium, total                          | 7440-24-6  | E420   | 0.0002   | mg/L | 0.25 mg/L                              | 101          | 80.0                | 120  | ----      |
| Sulfur, total                             | 7704-34-9  | E420   | 0.5      | mg/L | 50 mg/L                                | 89.6         | 80.0                | 120  | ----      |
| Tellurium, total                          | 13494-80-9 | E420   | 0.0002   | mg/L | 0.1 mg/L                               | 94.4         | 80.0                | 120  | ----      |
| Thallium, total                           | 7440-28-0  | E420   | 0.00001  | mg/L | 1 mg/L                                 | 99.3         | 80.0                | 120  | ----      |
| Thorium, total                            | 7440-29-1  | E420   | 0.0001   | mg/L | 0.1 mg/L                               | 96.3         | 80.0                | 120  | ----      |
| Tin, total                                | 7440-31-5  | E420   | 0.0001   | mg/L | 0.5 mg/L                               | 99.1         | 80.0                | 120  | ----      |
| Titanium, total                           | 7440-32-6  | E420   | 0.0003   | mg/L | 0.25 mg/L                              | 99.5         | 80.0                | 120  | ----      |
| Tungsten, total                           | 7440-33-7  | E420   | 0.0001   | mg/L | 0.1 mg/L                               | 100          | 80.0                | 120  | ----      |
| Uranium, total                            | 7440-61-1  | E420   | 0.00001  | mg/L | 0.005 mg/L                             | 99.8         | 80.0                | 120  | ----      |
| Vanadium, total                           | 7440-62-2  | E420   | 0.0005   | mg/L | 0.5 mg/L                               | 103          | 80.0                | 120  | ----      |
| Zinc, total                               | 7440-66-6  | E420   | 0.003    | mg/L | 0.5 mg/L                               | 100          | 80.0                | 120  | ----      |
| Zirconium, total                          | 7440-67-7  | E420   | 0.0002   | mg/L | 0.1 mg/L                               | 103          | 80.0                | 120  | ----      |
| Total Metals (QCLot: 1767533)             |            |        |          |      |                                        |              |                     |      |           |



|                                           |            |        |          |      |                                        |              |                     |      |           |
|-------------------------------------------|------------|--------|----------|------|----------------------------------------|--------------|---------------------|------|-----------|
| Sub-Matrix: <b>Water</b>                  |            |        |          |      | Laboratory Control Sample (LCS) Report |              |                     |      |           |
|                                           |            |        |          |      | Spike                                  | Recovery (%) | Recovery Limits (%) |      |           |
| Analyte                                   | CAS Number | Method | LOR      | Unit | Target Concentration                   | LCS          | Low                 | High | Qualifier |
| Total Metals (QCLot: 1767533) - continued |            |        |          |      |                                        |              |                     |      |           |
| Mercury, total                            | 7439-97-6  | E508   | 0.000005 | mg/L | 0 mg/L                                 | 95.8         | 80.0                | 120  | ----      |
| Zinc, dissolved                           | 7440-66-6  | E421   | 0.001    | mg/L | 0.5 mg/L                               | 95.7         | 80.0                | 120  | ----      |





Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

| Laboratory sample ID                        |           |                                 |            |            | Matrix Spike (MS) Report |            |              |                     |      |           |
|---------------------------------------------|-----------|---------------------------------|------------|------------|--------------------------|------------|--------------|---------------------|------|-----------|
|                                             |           |                                 |            |            | Spike                    |            | Recovery (%) | Recovery Limits (%) |      | Qualifier |
|                                             |           |                                 |            |            | Concentration            | Target     | MS           | Low                 | High |           |
| Client sample ID                            | Analyte   | CAS Number                      | Method     |            |                          |            |              |                     |      |           |
| Anions and Nutrients (QCLot: 1759528)       |           |                                 |            |            |                          |            |              |                     |      |           |
| FJ2403426-001                               | 3-4       | Sulfate (as SO4)                | 14808-79-8 | E235.SO4   | 468 mg/L                 | 500 mg/L   | 93.5         | 75.0                | 125  | ----      |
| Anions and Nutrients (QCLot: 1759529)       |           |                                 |            |            |                          |            |              |                     |      |           |
| FJ2403426-001                               | 3-4       | Nitrate (as N)                  | 14797-55-8 | E235.NO3-L | 12.2 mg/L                | 12.5 mg/L  | 97.8         | 75.0                | 125  | ----      |
| Anions and Nutrients (QCLot: 1759530)       |           |                                 |            |            |                          |            |              |                     |      |           |
| FJ2403426-001                               | 3-4       | Nitrite (as N)                  | 14797-65-0 | E235.NO2-L | 2.42 mg/L                | 2.5 mg/L   | 96.8         | 75.0                | 125  | ----      |
| Anions and Nutrients (QCLot: 1759531)       |           |                                 |            |            |                          |            |              |                     |      |           |
| FJ2403426-001                               | 3-4       | Fluoride                        | 16984-48-8 | E235.F     | 4.63 mg/L                | 5 mg/L     | 92.5         | 75.0                | 125  | ----      |
| Anions and Nutrients (QCLot: 1759532)       |           |                                 |            |            |                          |            |              |                     |      |           |
| FJ2403426-001                               | 3-4       | Chloride                        | 16887-00-6 | E235.Cl    | 492 mg/L                 | 500 mg/L   | 98.5         | 75.0                | 125  | ----      |
| Anions and Nutrients (QCLot: 1759533)       |           |                                 |            |            |                          |            |              |                     |      |           |
| FJ2403426-001                               | 3-4       | Bromide                         | 24959-67-9 | E235.Br-L  | 2.50 mg/L                | 2.5 mg/L   | 100          | 75.0                | 125  | ----      |
| Organic / Inorganic Carbon (QCLot: 1760879) |           |                                 |            |            |                          |            |              |                     |      |           |
| KS2404705-001                               | Anonymous | Carbon, dissolved organic [DOC] | ----       | E358-L     | 5.10 mg/L                | 5 mg/L     | 102          | 70.0                | 130  | ----      |
| Total Metals (QCLot: 1761564)               |           |                                 |            |            |                          |            |              |                     |      |           |
| VA24D0215-001                               | Anonymous | Aluminum, total                 | 7429-90-5  | E420       | 0.385 mg/L               | 0.4 mg/L   | 96.3         | 70.0                | 130  | ----      |
|                                             |           | Antimony, total                 | 7440-36-0  | E420       | 0.0382 mg/L              | 0.04 mg/L  | 95.4         | 70.0                | 130  | ----      |
|                                             |           | Arsenic, total                  | 7440-38-2  | E420       | 0.0410 mg/L              | 0.04 mg/L  | 102          | 70.0                | 130  | ----      |
|                                             |           | Barium, total                   | 7440-39-3  | E420       | 0.0371 mg/L              | 0.04 mg/L  | 92.8         | 70.0                | 130  | ----      |
|                                             |           | Beryllium, total                | 7440-41-7  | E420       | 0.0776 mg/L              | 0.08 mg/L  | 97.0         | 70.0                | 130  | ----      |
|                                             |           | Bismuth, total                  | 7440-69-9  | E420       | 0.0184 mg/L              | 0.02 mg/L  | 91.8         | 70.0                | 130  | ----      |
|                                             |           | Boron, total                    | 7440-42-8  | E420       | 0.175 mg/L               | 0.2 mg/L   | 87.6         | 70.0                | 130  | ----      |
|                                             |           | Cadmium, total                  | 7440-43-9  | E420       | 0.00755 mg/L             | 0.008 mg/L | 94.4         | 70.0                | 130  | ----      |
|                                             |           | Calcium, total                  | 7440-70-2  | E420       | ND mg/L                  | ----       | ND           | 70.0                | 130  | ----      |
|                                             |           | Cesium, total                   | 7440-46-2  | E420       | 0.0193 mg/L              | 0.02 mg/L  | 96.7         | 70.0                | 130  | ----      |
|                                             |           | Chromium, total                 | 7440-47-3  | E420       | 0.0767 mg/L              | 0.08 mg/L  | 95.9         | 70.0                | 130  | ----      |
|                                             |           | Cobalt, total                   | 7440-48-4  | E420       | 0.0375 mg/L              | 0.04 mg/L  | 93.7         | 70.0                | 130  | ----      |
|                                             |           | Copper, total                   | 7440-50-8  | E420       | ND mg/L                  | ----       | ND           | 70.0                | 130  | ----      |
|                                             |           | Iron, total                     | 7439-89-6  | E420       | 3.80 mg/L                | 4 mg/L     | 94.9         | 70.0                | 130  | ----      |
|                                             |           | Lead, total                     | 7439-92-1  | E420       | 0.0366 mg/L              | 0.04 mg/L  | 91.6         | 70.0                | 130  | ----      |
|                                             |           | Lithium, total                  | 7439-93-2  | E420       | 0.188 mg/L               | 0.2 mg/L   | 94.3         | 70.0                | 130  | ----      |
|                                             |           | Magnesium, total                | 7439-95-4  | E420       | ND mg/L                  | ----       | ND           | 70.0                | 130  | ----      |
|                                             |           | Manganese, total                | 7439-96-5  | E420       | ND mg/L                  | ----       | ND           | 70.0                | 130  | ----      |
|                                             |           | Molybdenum, total               | 7439-98-7  | E420       | ND mg/L                  | ----       | ND           | 70.0                | 130  | ----      |
|                                             |           | Nickel, total                   | 7440-02-0  | E420       | 0.0728 mg/L              | 0.08 mg/L  | 91.0         | 70.0                | 130  | ----      |
|                                             |           | Phosphorus, total               | 7723-14-0  | E420       | 22.0 mg/L                | 20 mg/L    | 110          | 70.0                | 130  | ----      |



| Sub-Matrix: Water                         |                  |                  |            |        | Matrix Spike (MS) Report |            |              |                     |      |           |
|-------------------------------------------|------------------|------------------|------------|--------|--------------------------|------------|--------------|---------------------|------|-----------|
|                                           |                  |                  |            |        | Spike                    |            | Recovery (%) | Recovery Limits (%) |      |           |
| Laboratory sample ID                      | Client sample ID | Analyte          | CAS Number | Method | Concentration            | Target     | MS           | Low                 | High | Qualifier |
| Total Metals (QCLot: 1761564) - continued |                  |                  |            |        |                          |            |              |                     |      |           |
| VA24D0215-001                             | Anonymous        | Potassium, total | 7440-09-7  | E420   | ND mg/L                  | ----       | ND           | 70.0                | 130  | ----      |
|                                           |                  | Rubidium, total  | 7440-17-7  | E420   | ND mg/L                  | ----       | ND           | 70.0                | 130  | ----      |
|                                           |                  | Selenium, total  | 7782-49-2  | E420   | 0.0788 mg/L              | 0.08 mg/L  | 98.5         | 70.0                | 130  | ----      |
|                                           |                  | Silicon, total   | 7440-21-3  | E420   | 18.4 mg/L                | 20 mg/L    | 92.1         | 70.0                | 130  | ----      |
|                                           |                  | Silver, total    | 7440-22-4  | E420   | 0.00727 mg/L             | 0.008 mg/L | 90.9         | 70.0                | 130  | ----      |
|                                           |                  | Sodium, total    | 7440-23-5  | E420   | ND mg/L                  | ----       | ND           | 70.0                | 130  | ----      |
|                                           |                  | Strontium, total | 7440-24-6  | E420   | ND mg/L                  | ----       | ND           | 70.0                | 130  | ----      |
|                                           |                  | Sulfur, total    | 7704-34-9  | E420   | ND mg/L                  | ----       | ND           | 70.0                | 130  | ----      |
|                                           |                  | Tellurium, total | 13494-80-9 | E420   | 0.0775 mg/L              | 0.08 mg/L  | 96.9         | 70.0                | 130  | ----      |
|                                           |                  | Thallium, total  | 7440-28-0  | E420   | 0.00711 mg/L             | 0.008 mg/L | 88.9         | 70.0                | 130  | ----      |
|                                           |                  | Thorium, total   | 7440-29-1  | E420   | 0.0362 mg/L              | 0.04 mg/L  | 90.6         | 70.0                | 130  | ----      |
|                                           |                  | Tin, total       | 7440-31-5  | E420   | 0.0379 mg/L              | 0.04 mg/L  | 94.8         | 70.0                | 130  | ----      |
|                                           |                  | Titanium, total  | 7440-32-6  | E420   | 0.0814 mg/L              | 0.08 mg/L  | 102          | 70.0                | 130  | ----      |
|                                           |                  | Tungsten, total  | 7440-33-7  | E420   | 0.0380 mg/L              | 0.04 mg/L  | 94.9         | 70.0                | 130  | ----      |
|                                           |                  | Uranium, total   | 7440-61-1  | E420   | 0.00745 mg/L             | 0.008 mg/L | 93.1         | 70.0                | 130  | ----      |
|                                           |                  | Vanadium, total  | 7440-62-2  | E420   | 0.197 mg/L               | 0.2 mg/L   | 98.7         | 70.0                | 130  | ----      |
|                                           |                  | Zinc, total      | 7440-66-6  | E420   | 0.737 mg/L               | 0.8 mg/L   | 92.2         | 70.0                | 130  | ----      |
|                                           |                  | Zirconium, total | 7440-67-7  | E420   | 0.0790 mg/L              | 0.08 mg/L  | 98.7         | 70.0                | 130  | ----      |
| Total Metals (QCLot: 1767533)             |                  |                  |            |        |                          |            |              |                     |      |           |
| VA24D0821-001                             | Anonymous        | Mercury, total   | 7439-97-6  | E508   | 0.0000921 mg/L           | 0 mg/L     | 92.1         | 70.0                | 130  | ----      |
| Dissolved Metals (QCLot: 1761725)         |                  |                  |            |        |                          |            |              |                     |      |           |
| FJ2403430-001                             | Anonymous        | Zinc, dissolved  | 7440-66-6  | E421   | 0.378 mg/L               | 0.4 mg/L   | 94.4         | 70.0                | 130  | ----      |

## QUALITY CONTROL INTERPRETIVE REPORT

|                         |                                                                     |                       |                                                                       |
|-------------------------|---------------------------------------------------------------------|-----------------------|-----------------------------------------------------------------------|
| Work Order              | : FJ2403426                                                         | Page                  | : 1 of 9                                                              |
| Client                  | : NorZinc Ltd.                                                      | Laboratory            | : ALS Environmental - Fort St. John                                   |
| Contact                 | : Andrew Howton                                                     | Account Manager       | : Thomas Chang                                                        |
| Address                 | : 510 Burrard St. Suite 907<br>Vancouver BC Canada V6C 3A8          | Address               | : 11007 Alaska Road<br>Fort St. John, British Columbia Canada V1J 6P3 |
| Telephone               | : ----                                                              | Telephone             | : +1 250 261 5517                                                     |
| Project                 | : ----                                                              | Date Samples Received | : 08-Nov-2024 10:30                                                   |
| PO                      | : ----                                                              | Issue Date            | : 18-Nov-2024 09:27                                                   |
| C-O-C number            | : CZNNOV072024                                                      |                       |                                                                       |
| Sampler                 | : ----                                                              |                       |                                                                       |
| Site                    | : Canadian Zinc Water License Surveillance Network Program<br>(SNP) |                       |                                                                       |
| Quote number            | : VA24-NORZ100-001                                                  |                       |                                                                       |
| No. of samples received | : 1                                                                 |                       |                                                                       |
| No. of samples analysed | : 1                                                                 |                       |                                                                       |

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

### Key

**Anonymous:** Refers to samples which are not part of this work order, but which formed part of the QC process lot.

**CAS Number:** Chemical Abstracts Service number is a unique identifier assigned to discrete substances.

**DQO:** Data Quality Objective.

**LOR:** Limit of Reporting (detection limit).

**RPD:** Relative Percent Difference.

### Workorder Comments

Holding times are displayed as "----" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

### Summary of Outliers

#### Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

#### Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

### ***Outliers : Analysis Holding Time Compliance (Breaches)***

- Analysis Holding Time Outliers exist - please see following pages for full details.

### ***Outliers : Frequency of Quality Control Samples***

- No Quality Control Sample Frequency Outliers occur.



## Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

| Analyte Group : Analytical Method                         | Method     | Sampling Date | Extraction / Preparation |               |        |      | Analysis      |               |         |      |  |
|-----------------------------------------------------------|------------|---------------|--------------------------|---------------|--------|------|---------------|---------------|---------|------|--|
| Container / Client Sample ID(s)                           |            |               | Preparation Date         | Holding Times |        | Eval | Analysis Date | Holding Times |         | Eval |  |
|                                                           |            |               |                          | Rec           | Actual |      |               | Rec           | Actual  |      |  |
| Anions and Nutrients : Bromide in Water by IC (Low Level) |            |               |                          |               |        |      |               |               |         |      |  |
| HDPE<br>3-4                                               | E235.Br-L  | 06-Nov-2024   | 09-Nov-2024              | 28 days       | 3 days | ✓    | 09-Nov-2024   | 28 days       | 3 days  | ✓    |  |
| Anions and Nutrients : Chloride in Water by IC            |            |               |                          |               |        |      |               |               |         |      |  |
| HDPE<br>3-4                                               | E235.Cl    | 06-Nov-2024   | 09-Nov-2024              | 28 days       | 3 days | ✓    | 09-Nov-2024   | 28 days       | 3 days  | ✓    |  |
| Anions and Nutrients : Fluoride in Water by IC            |            |               |                          |               |        |      |               |               |         |      |  |
| HDPE<br>3-4                                               | E235.F     | 06-Nov-2024   | 09-Nov-2024              | 28 days       | 3 days | ✓    | 09-Nov-2024   | 28 days       | 3 days  | ✓    |  |
| Anions and Nutrients : Nitrate in Water by IC (Low Level) |            |               |                          |               |        |      |               |               |         |      |  |
| HDPE<br>3-4                                               | E235.NO3-L | 06-Nov-2024   | 09-Nov-2024              | 3 days        | 3 days | ✓    | 09-Nov-2024   | 3 days        | 3 days  | ✓    |  |
| Anions and Nutrients : Nitrite in Water by IC (Low Level) |            |               |                          |               |        |      |               |               |         |      |  |
| HDPE<br>3-4                                               | E235.NO2-L | 06-Nov-2024   | 09-Nov-2024              | 3 days        | 3 days | ✓    | 09-Nov-2024   | 3 days        | 3 days  | ✓    |  |
| Anions and Nutrients : Sulfate in Water by IC             |            |               |                          |               |        |      |               |               |         |      |  |
| HDPE<br>3-4                                               | E235.SO4   | 06-Nov-2024   | 09-Nov-2024              | 28 days       | 3 days | ✓    | 09-Nov-2024   | 28 days       | 3 days  | ✓    |  |
| Dissolved Metals : Dissolved Metals in Water by CRC ICPMS |            |               |                          |               |        |      |               |               |         |      |  |
| HDPE - dissolved (lab preserved)<br>3-4                   | E421       | 06-Nov-2024   | 14-Nov-2024              | 180 days      | 8 days | ✓    | 15-Nov-2024   | 180 days      | 10 days | ✓    |  |



Matrix: **Water** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

| Analyte Group : Analytical Method<br>Container / Client Sample ID(s)            | Method | Sampling Date | Extraction / Preparation |               |         |              | Analysis      |               |         |              |
|---------------------------------------------------------------------------------|--------|---------------|--------------------------|---------------|---------|--------------|---------------|---------------|---------|--------------|
|                                                                                 |        |               | Preparation Date         | Holding Times |         | Eval         | Analysis Date | Holding Times |         | Eval         |
|                                                                                 |        |               |                          | Rec           | Actual  |              |               | Rec           | Actual  |              |
| Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level) |        |               |                          |               |         |              |               |               |         |              |
| Amber glass dissolved (sulfuric acid)<br>3-4                                    | E358-L | 06-Nov-2024   | 11-Nov-2024              | 28 days       | 5 days  | ✓            | 12-Nov-2024   | 28 days       | 6 days  | ✓            |
| Physical Tests : Alkalinity Species by Titration                                |        |               |                          |               |         |              |               |               |         |              |
| HDPE<br>3-4                                                                     | E290   | 06-Nov-2024   | 09-Nov-2024              | 14 days       | 3 days  | ✓            | 09-Nov-2024   | 14 days       | 3 days  | ✓            |
| Physical Tests : Conductivity in Water                                          |        |               |                          |               |         |              |               |               |         |              |
| HDPE<br>3-4                                                                     | E100   | 06-Nov-2024   | 09-Nov-2024              | 28 days       | 3 days  | ✓            | 09-Nov-2024   | 28 days       | 3 days  | ✓            |
| Physical Tests : pH by Meter                                                    |        |               |                          |               |         |              |               |               |         |              |
| HDPE<br>3-4                                                                     | E108   | 06-Nov-2024   | 09-Nov-2024              | 0.25 hrs      | 77 hrs  | ✗<br>EHTR-FM | 09-Nov-2024   | 0.25 hrs      | 77 hrs  | ✗<br>EHTR-FM |
| Physical Tests : TDS by Gravimetry                                              |        |               |                          |               |         |              |               |               |         |              |
| HDPE<br>3-4                                                                     | E162   | 06-Nov-2024   | ----                     | ----          | ----    |              | 12-Nov-2024   | 7 days        | 7 days  | ✓            |
| Physical Tests : TSS by Gravimetry                                              |        |               |                          |               |         |              |               |               |         |              |
| HDPE<br>3-4                                                                     | E160   | 06-Nov-2024   | ----                     | ----          | ----    |              | 13-Nov-2024   | 7 days        | 7 days  | ✓            |
| Total Metals : Total Mercury in Water by CVAAS                                  |        |               |                          |               |         |              |               |               |         |              |
| Glass vial - dissolved (lab preserved)<br>3-4                                   | E508   | 06-Nov-2024   | 15-Nov-2024              | 0 hrs         | 207 hrs | ✗<br>UCP     | 15-Nov-2024   | 0 hrs         | 208 hrs | ✗<br>UCP     |
| Total Metals : Total Metals in Water by CRC ICPMS                               |        |               |                          |               |         |              |               |               |         |              |
| HDPE - total (lab preserved)<br>3-4                                             | E420   | 06-Nov-2024   | 14-Nov-2024              | 180 days      | 8 days  | ✓            | 17-Nov-2024   | 180 days      | 11 days | ✓            |

**Legend & Qualifier Definitions**

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended

Rec. HT: ALS recommended hold time (see units).

UCP: Unsuitable Container and/or Preservative used (invalidates standard hold time). Maximum hold time of zero applied. Test results may be biased low / unreliable, and may not meet regulatory requirements.



## Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water** Evaluation: ✖ = QC frequency outside specification; ✔ = QC frequency within specification.

| Quality Control Sample Type                        |            |          | Count |         | Frequency (%) |          |            |
|----------------------------------------------------|------------|----------|-------|---------|---------------|----------|------------|
| Analytical Methods                                 | Method     | QC Lot # | QC    | Regular | Actual        | Expected | Evaluation |
| Laboratory Duplicates (DUP)                        |            |          |       |         |               |          |            |
| Alkalinity Species by Titration                    | E290       | 1759527  | 1     | 20      | 5.0           | 5.0      | ✓          |
| Bromide in Water by IC (Low Level)                 | E235.Br-L  | 1759533  | 1     | 15      | 6.6           | 5.0      | ✓          |
| Chloride in Water by IC                            | E235.Cl    | 1759532  | 1     | 15      | 6.6           | 5.0      | ✓          |
| Conductivity in Water                              | E100       | 1759525  | 1     | 20      | 5.0           | 5.0      | ✓          |
| Dissolved Metals in Water by CRC ICPMS             | E421       | 1761725  | 1     | 20      | 5.0           | 5.0      | ✓          |
| Dissolved Organic Carbon by Combustion (Low Level) | E358-L     | 1760879  | 1     | 17      | 5.8           | 5.0      | ✓          |
| Fluoride in Water by IC                            | E235.F     | 1759531  | 1     | 15      | 6.6           | 5.0      | ✓          |
| Nitrate in Water by IC (Low Level)                 | E235.NO3-L | 1759529  | 1     | 19      | 5.2           | 5.0      | ✓          |
| Nitrite in Water by IC (Low Level)                 | E235.NO2-L | 1759530  | 1     | 20      | 5.0           | 5.0      | ✓          |
| pH by Meter                                        | E108       | 1759526  | 1     | 20      | 5.0           | 5.0      | ✓          |
| Sulfate in Water by IC                             | E235.SO4   | 1759528  | 1     | 15      | 6.6           | 5.0      | ✓          |
| TDS by Gravimetry                                  | E162       | 1762949  | 1     | 20      | 5.0           | 5.0      | ✓          |
| Total Mercury in Water by CVAAS                    | E508       | 1767533  | 1     | 13      | 7.6           | 5.0      | ✓          |
| Total Metals in Water by CRC ICPMS                 | E420       | 1761564  | 1     | 20      | 5.0           | 5.0      | ✓          |
| TSS by Gravimetry                                  | E160       | 1762953  | 1     | 20      | 5.0           | 5.0      | ✓          |
| Laboratory Control Samples (LCS)                   |            |          |       |         |               |          |            |
| Alkalinity Species by Titration                    | E290       | 1759527  | 1     | 20      | 5.0           | 5.0      | ✓          |
| Bromide in Water by IC (Low Level)                 | E235.Br-L  | 1759533  | 1     | 15      | 6.6           | 5.0      | ✓          |
| Chloride in Water by IC                            | E235.Cl    | 1759532  | 1     | 15      | 6.6           | 5.0      | ✓          |
| Conductivity in Water                              | E100       | 1759525  | 1     | 20      | 5.0           | 5.0      | ✓          |
| Dissolved Metals in Water by CRC ICPMS             | E421       | 1761725  | 1     | 20      | 5.0           | 5.0      | ✓          |
| Dissolved Organic Carbon by Combustion (Low Level) | E358-L     | 1760879  | 1     | 17      | 5.8           | 5.0      | ✓          |
| Fluoride in Water by IC                            | E235.F     | 1759531  | 1     | 15      | 6.6           | 5.0      | ✓          |
| Nitrate in Water by IC (Low Level)                 | E235.NO3-L | 1759529  | 1     | 19      | 5.2           | 5.0      | ✓          |
| Nitrite in Water by IC (Low Level)                 | E235.NO2-L | 1759530  | 1     | 20      | 5.0           | 5.0      | ✓          |
| pH by Meter                                        | E108       | 1759526  | 1     | 20      | 5.0           | 5.0      | ✓          |
| Sulfate in Water by IC                             | E235.SO4   | 1759528  | 1     | 15      | 6.6           | 5.0      | ✓          |
| TDS by Gravimetry                                  | E162       | 1762949  | 1     | 20      | 5.0           | 5.0      | ✓          |
| Total Mercury in Water by CVAAS                    | E508       | 1767533  | 1     | 13      | 7.6           | 5.0      | ✓          |
| Total Metals in Water by CRC ICPMS                 | E420       | 1761564  | 1     | 20      | 5.0           | 5.0      | ✓          |
| TSS by Gravimetry                                  | E160       | 1762953  | 1     | 20      | 5.0           | 5.0      | ✓          |
| Method Blanks (MB)                                 |            |          |       |         |               |          |            |
| Alkalinity Species by Titration                    | E290       | 1759527  | 1     | 20      | 5.0           | 5.0      | ✓          |
| Bromide in Water by IC (Low Level)                 | E235.Br-L  | 1759533  | 1     | 15      | 6.6           | 5.0      | ✓          |
| Chloride in Water by IC                            | E235.Cl    | 1759532  | 1     | 15      | 6.6           | 5.0      | ✓          |



Matrix: **Water**

Evaluation: ✖ = QC frequency outside specification; ✔ = QC frequency within specification.

| Quality Control Sample Type                        |            |          | Count |         | Frequency (%) |          |            |
|----------------------------------------------------|------------|----------|-------|---------|---------------|----------|------------|
| Analytical Methods                                 | Method     | QC Lot # | QC    | Regular | Actual        | Expected | Evaluation |
| <b>Method Blanks (MB) - Continued</b>              |            |          |       |         |               |          |            |
| Conductivity in Water                              | E100       | 1759525  | 1     | 20      | 5.0           | 5.0      | ✔          |
| Dissolved Metals in Water by CRC ICPMS             | E421       | 1761725  | 1     | 20      | 5.0           | 5.0      | ✔          |
| Dissolved Organic Carbon by Combustion (Low Level) | E358-L     | 1760879  | 1     | 17      | 5.8           | 5.0      | ✔          |
| Fluoride in Water by IC                            | E235.F     | 1759531  | 1     | 15      | 6.6           | 5.0      | ✔          |
| Nitrate in Water by IC (Low Level)                 | E235.NO3-L | 1759529  | 1     | 19      | 5.2           | 5.0      | ✔          |
| Nitrite in Water by IC (Low Level)                 | E235.NO2-L | 1759530  | 1     | 20      | 5.0           | 5.0      | ✔          |
| Sulfate in Water by IC                             | E235.SO4   | 1759528  | 1     | 15      | 6.6           | 5.0      | ✔          |
| TDS by Gravimetry                                  | E162       | 1762949  | 1     | 20      | 5.0           | 5.0      | ✔          |
| Total Mercury in Water by CVAAS                    | E508       | 1767533  | 1     | 13      | 7.6           | 5.0      | ✔          |
| Total Metals in Water by CRC ICPMS                 | E420       | 1761564  | 1     | 20      | 5.0           | 5.0      | ✔          |
| TSS by Gravimetry                                  | E160       | 1762953  | 1     | 20      | 5.0           | 5.0      | ✔          |
| <b>Matrix Spikes (MS)</b>                          |            |          |       |         |               |          |            |
| Bromide in Water by IC (Low Level)                 | E235.Br-L  | 1759533  | 1     | 15      | 6.6           | 5.0      | ✔          |
| Chloride in Water by IC                            | E235.Cl    | 1759532  | 1     | 15      | 6.6           | 5.0      | ✔          |
| Dissolved Metals in Water by CRC ICPMS             | E421       | 1761725  | 1     | 20      | 5.0           | 5.0      | ✔          |
| Dissolved Organic Carbon by Combustion (Low Level) | E358-L     | 1760879  | 1     | 17      | 5.8           | 5.0      | ✔          |
| Fluoride in Water by IC                            | E235.F     | 1759531  | 1     | 15      | 6.6           | 5.0      | ✔          |
| Nitrate in Water by IC (Low Level)                 | E235.NO3-L | 1759529  | 1     | 19      | 5.2           | 5.0      | ✔          |
| Nitrite in Water by IC (Low Level)                 | E235.NO2-L | 1759530  | 1     | 20      | 5.0           | 5.0      | ✔          |
| Sulfate in Water by IC                             | E235.SO4   | 1759528  | 1     | 15      | 6.6           | 5.0      | ✔          |
| Total Mercury in Water by CVAAS                    | E508       | 1767533  | 1     | 13      | 7.6           | 5.0      | ✔          |
| Total Metals in Water by CRC ICPMS                 | E420       | 1761564  | 1     | 20      | 5.0           | 5.0      | ✔          |





## Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

| Analytical Methods                 | Method / Lab                                | Matrix | Method Reference  | Method Descriptions                                                                                                                                                                                                                                                                                                                                                                                          |
|------------------------------------|---------------------------------------------|--------|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Conductivity in Water              | E100<br>ALS Environmental - Vancouver       | Water  | APHA 2510 (mod)   | Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.                                                                                                                                                               |
| pH by Meter                        | E108<br>ALS Environmental - Vancouver       | Water  | APHA 4500-H (mod) | pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.                                                                                                                                                   |
| TSS by Gravimetry                  | E160<br>ALS Environmental - Vancouver       | Water  | APHA 2540 D (mod) | Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples. |
| TDS by Gravimetry                  | E162<br>ALS Environmental - Vancouver       | Water  | APHA 2540 C (mod) | Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.                                                                                                                                                                               |
| Bromide in Water by IC (Low Level) | E235.Br-L<br>ALS Environmental - Vancouver  | Water  | EPA 300.1 (mod)   | Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.                                                                                                                                                                                                                                                                                                                   |
| Chloride in Water by IC            | E235.Cl<br>ALS Environmental - Vancouver    | Water  | EPA 300.1 (mod)   | Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.                                                                                                                                                                                                                                                                                                                   |
| Fluoride in Water by IC            | E235.F<br>ALS Environmental - Vancouver     | Water  | EPA 300.1 (mod)   | Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.                                                                                                                                                                                                                                                                                                                   |
| Nitrite in Water by IC (Low Level) | E235.NO2-L<br>ALS Environmental - Vancouver | Water  | EPA 300.1 (mod)   | Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.                                                                                                                                                                                                                                                                                                                   |
| Nitrate in Water by IC (Low Level) | E235.NO3-L<br>ALS Environmental - Vancouver | Water  | EPA 300.1 (mod)   | Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.                                                                                                                                                                                                                                                                                                                   |



| Analytical Methods                                 | Method / Lab                                  | Matrix | Method Reference           | Method Descriptions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----------------------------------------------------|-----------------------------------------------|--------|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sulfate in Water by IC                             | E235.SO4<br><br>ALS Environmental - Vancouver | Water  | EPA 300.1 (mod)            | Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Alkalinity Species by Titration                    | E290<br><br>ALS Environmental - Vancouver     | Water  | APHA 2320 B (mod)          | Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.                                                                                                                                                                                                                                                                                                                                                                           |
| Dissolved Organic Carbon by Combustion (Low Level) | E358-L<br><br>ALS Environmental - Vancouver   | Water  | APHA 5310 B (mod)          | Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO <sub>2</sub> . NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC). |
| Total Metals in Water by CRC ICPMS                 | E420<br><br>ALS Environmental - Vancouver     | Water  | EPA 200.2/6020B (mod)      | Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.<br><br>Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.                                                                                                                                                                                                                                                                                                                                                          |
| Dissolved Metals in Water by CRC ICPMS             | E421<br><br>ALS Environmental - Vancouver     | Water  | APHA 3030B/EPA 6020B (mod) | Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.<br><br>Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.                                                                                                                                                                                                                                                                                                                                                       |
| Total Mercury in Water by CVAAS                    | E508<br><br>ALS Environmental - Vancouver     | Water  | EPA 1631E (mod)            | Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Hardness (Calculated) from Total Ca/Mg             | EC100A<br><br>ALS Environmental - Vancouver   | Water  | APHA 2340B                 | "Hardness (as CaCO <sub>3</sub> ), from total Ca/Mg" is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO <sub>3</sub> equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.                                                              |

| Preparation Methods                                     | Method / Lab                               | Matrix | Method Reference  | Method Descriptions                                                         |
|---------------------------------------------------------|--------------------------------------------|--------|-------------------|-----------------------------------------------------------------------------|
| Preparation for Dissolved Organic Carbon for Combustion | EP358<br><br>ALS Environmental - Vancouver | Water  | APHA 5310 B (mod) | Preparation for Dissolved Organic Carbon                                    |
| Dissolved Metals Water Filtration                       | EP421<br><br>ALS Environmental - Vancouver | Water  | APHA 3030B        | Water samples are filtered (0.45 um), and preserved with HNO <sub>3</sub> . |





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# Chain of Custody (COC) / Analytical Request Form

COC Number: 22 -

COC# CZNNOV072024

Page 1 of 1

Canada Toll Free: 1 800 668 9878

Environmental Division  
Fort St. John  
Work Order Reference  
FJ2403426



Telephone : +1 250 261 5617

Analysis Rec.

Contact and company name below will appear on the final report

Reports / Recipients

Turnaround Time (TAT) Requested

Company:

Canadian Zinc

Select Report Format: ☒ PDF ☒ EXCEL ☐ EDD (DIGITAL)

Contact:

Andrew Howton

Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A

Phone:

403-968-7471

☐ Compare Results to Criteria on Report - provide details below if box checked

Company address below will appear on the final report

Select Distribution: ☒ EMAIL ☐ MAIL ☐ FAX

Street:

510 Burrard St suite 907

Email 1 or Fax waterresults@nozinc.com

City/Province:

Vancouver, BC

Email 2 andrew.howton@nozinc.com

Postal Code:

V6C 3A8

Email 3

Invoice To

☐ YES ☒ NO

Invoice Recipients

☒ Routine [R] if received by 3pm M-F - no surcharges apply  
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge min/r

Copy of Invoice with Report

☐ YES ☒ NO

Select Invoice Distribution: ☒ EMAIL ☐ MAIL ☐ FAX

Company:

Canadian Zinc

Email 1 or Fax accounting@nozinc.com

Contact:

Andrew Howton

Email 2 andrew.howton@nozinc.com

## Project Information

Oil and Gas Required Fields (client use)

ALS Account # / Quote #:

A/E/Cost Center:

PO#

Routing Code:

Job #:

Major/Minor Code:

Routing Code:

PO / AFE:

Requisitioner:

LSD:

Location:

ALS Lab Work Order # (ALS use only):

ALS Contact:

Sampler:

ALS Sample # (ALS use only)

Sample Identification and/or Coordinates (This description will appear on the report)

Date (dd-mm-yy)

Time (hh:mm)

Sample Type

## NUMBER OF CONTAINERS

|   |   |                                       |
|---|---|---------------------------------------|
| 6 | R | pH, conductivity, TSS                 |
|   | R | alkalinity, hardness. Ca, Cl-, F-, Mg |
|   | R | K, Na, sulfate, TDS                   |
|   | R | DOC                                   |
|   | R | Total Hg                              |
|   | R | Total Metals                          |
|   | R | Dissolved Zn                          |
|   | R | Dissolved Hg                          |
|   | R | Dissolved Metals                      |
|   | R | NH3, NO2-, TNH                        |
|   | R | PO43- Total P, Dissolved P            |
|   | R | BPH, BTEX, F1, C6-910                 |
|   | R | extractable hydrocarbons (C10-999)    |
|   | R | Total Coliforms and E. coli           |
|   | R | SAMPLES ON HOLD                       |
|   | R | EXTENDED STORAGE REQUIRED             |
|   | R | SUSPECTED HAZARD (see notes)          |

Drinking Water (DW) Samples (client use)

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Are samples taken from a Regulated DW System?

☐ YES ☒ NO

Are samples for human consumption/ use?

☐ YES ☒ NO

SHIPMENT RELEASE (client use)

Released by: Andrew Howton

Date:

7-Nov-24

Time:

11am

Received by:

11:30

Time:

Received by:

Date:

Time:

Time:

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY

YELLOW - CLIENT COPY

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) system, please submit using an Authorized DW COC form.

FLAE Shipping & Receiving  
Call Out Expedite  
Priority  
# of Coolers  
# of Carboys  
Ground

## SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☐ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C FINAL COOLER TEMPERATURES °C

11:8





## CERTIFICATE OF ANALYSIS

|                                |                                                                         |                                |                                        |
|--------------------------------|-------------------------------------------------------------------------|--------------------------------|----------------------------------------|
| <b>Work Order</b>              | <b>: FJ2403498</b>                                                      |                                |                                        |
| <b>Client</b>                  | <b>: NorZinc Ltd.</b>                                                   | <b>Laboratory</b>              | <b>: ALS Environmental - Vancouver</b> |
| <b>Contact</b>                 | <b>: Andrew Howton</b>                                                  | <b>Account Manager</b>         | <b>: Thomas Chang</b>                  |
| <b>Address</b>                 | <b>: 510 Burrard St. Suite 907</b>                                      | <b>Address</b>                 | <b>: 8081 Lougheed Highway</b>         |
|                                | <b>: Vancouver British Columbia Canada V6C 3A8</b>                      |                                | <b>: Burnaby BC Canada V5A 1W9</b>     |
| <b>Telephone</b>               | <b>: ----</b>                                                           | <b>Telephone</b>               | <b>: +1 604 253 4188</b>               |
| <b>Project</b>                 | <b>: ----</b>                                                           | <b>Date Samples Received</b>   | <b>: 15-Nov-2024 15:55</b>             |
| <b>PO</b>                      | <b>: ----</b>                                                           | <b>Date Analysis Commenced</b> | <b>: 19-Nov-2024</b>                   |
| <b>C-O-C number</b>            | <b>: CZNNOV0132024</b>                                                  | <b>Issue Date</b>              | <b>: 26-Nov-2024 16:54</b>             |
| <b>Sampler</b>                 | <b>: ----</b>                                                           |                                |                                        |
| <b>Site</b>                    | <b>: Canadian Zinc Water License Surveillance Network Program (SNP)</b> |                                |                                        |
| <b>Quote number</b>            | <b>: VA24-NORZ100-001</b>                                               |                                |                                        |
| <b>No. of samples received</b> | <b>: 7</b>                                                              |                                |                                        |
| <b>No. of samples analysed</b> | <b>: 7</b>                                                              |                                |                                        |

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

### Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

| <i>Signatories</i>   | <i>Position</i>                            | <i>Laboratory Department</i>          |
|----------------------|--------------------------------------------|---------------------------------------|
| Daniel Shabestani    | Lab Assistant                              | Metals, Burnaby, British Columbia     |
| Erin Sanchez         |                                            | Metals, Burnaby, British Columbia     |
| Ghazaleh Khanmirzaei | Analyst                                    | Metals, Burnaby, British Columbia     |
| Kevin Duarte         | Supervisor - Metals ICP Instrumentation    | Metals, Burnaby, British Columbia     |
| Kevin Duarte         | Supervisor - Metals ICP Instrumentation    | Inorganics, Burnaby, British Columbia |
| Monica Ko            | Lab Assistant                              | Inorganics, Burnaby, British Columbia |
| Owen Cheng           |                                            | Metals, Burnaby, British Columbia     |
| Rebecca Sit          | Supervisor - Organics Extractions          | Organics, Burnaby, British Columbia   |
| Tracy Harley         | Supervisor - Water Quality Instrumentation | Inorganics, Burnaby, British Columbia |

## General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key: CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.  
LOR: Limit of Reporting (detection limit).

| Unit     | Description                 |
|----------|-----------------------------|
| mg/L     | milligrams per litre        |
| pH units | pH units                    |
| µS/cm    | microsiemens per centimetre |
| -        | no units                    |
| µg/L     | micrograms per litre        |

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.



## Qualifiers

| Qualifier | Description                                                                                            |
|-----------|--------------------------------------------------------------------------------------------------------|
| DLDS      | Detection Limit Raised: Dilution required due to high Dissolved Solids / Electrical Conductivity.      |
| DLM       | Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity). |





## Analytical Results

Sub-Matrix: Water

(Matrix: Water)

| Sub-Matrix: Water<br>(Matrix: Water)   |            |               |        |          | Client sample ID        |                   | 3-4                     | 3-14              | 3-16              | 3-10 | 3-11 |
|----------------------------------------|------------|---------------|--------|----------|-------------------------|-------------------|-------------------------|-------------------|-------------------|------|------|
| Client sampling date / time            |            |               |        |          | 12-Nov-2024 23:00       | 13-Nov-2024 08:30 | 13-Nov-2024 08:15       | 13-Nov-2024 10:00 | 13-Nov-2024 10:15 |      |      |
| Analyte                                | CAS Number | Method/Lab    | LOR    | Unit     | FJ2403498-001           | FJ2403498-002     | FJ2403498-003           | FJ2403498-004     | FJ2403498-005     |      |      |
|                                        |            |               |        |          | Result                  | Result            | Result                  | Result            | Result            |      |      |
| Physical Tests                         |            |               |        |          |                         |                   |                         |                   |                   |      |      |
| Alkalinity, bicarbonate (as CaCO3)     | ----       | E290/VA       | 1.0    | mg/L     | 289                     | <1.0              | 295                     | 202               | 204               |      |      |
| Alkalinity, carbonate (as CaCO3)       | ----       | E290/VA       | 1.0    | mg/L     | <1.0                    | <1.0              | <1.0                    | 4.4               | 5.4               |      |      |
| Alkalinity, hydroxide (as CaCO3)       | ----       | E290/VA       | 1.0    | mg/L     | <1.0                    | <1.0              | <1.0                    | <1.0              | <1.0              |      |      |
| Alkalinity, phenolphthalein (as CaCO3) | ----       | E290/VA       | 1.0    | mg/L     | <1.0                    | <1.0              | <1.0                    | 2.2               | 2.7               |      |      |
| Alkalinity, total (as CaCO3)           | ----       | E290/VA       | 1.0    | mg/L     | 289                     | <1.0              | 295                     | 206               | 210               |      |      |
| Conductivity                           | ----       | E100/VA       | 2.0    | µS/cm    | 1220                    | <2.0              | 1210                    | 601               | 618               |      |      |
| Hardness (as CaCO3), dissolved         | ----       | EC100/VA      | 0.60   | mg/L     | ----                    | ----              | ----                    | 337               | 350               |      |      |
| Hardness (as CaCO3), from total Ca/Mg  | ----       | EC100A/VA     | 0.60   | mg/L     | 701                     | <0.60             | 697                     | 306               | 332               |      |      |
| pH                                     | ----       | E108/VA       | 0.10   | pH units | 8.20                    | 5.32              | 8.25                    | 8.35              | 8.36              |      |      |
| Solids, total dissolved [TDS]          | ----       | E162/VA       | 10     | mg/L     | 934                     | <10               | 995                     | 413               | 422               |      |      |
| Solids, total suspended [TSS]          | ----       | E160/VA       | 3.0    | mg/L     | 5.0                     | <3.0              | 3.6                     | <3.0              | <3.0              |      |      |
| Anions and Nutrients                   |            |               |        |          |                         |                   |                         |                   |                   |      |      |
| Ammonia, total (as N)                  | 7664-41-7  | E298/VA       | 0.0050 | mg/L     | ----                    | ----              | ----                    | <0.0050           | 0.0120            |      |      |
| Bromide                                | 24959-67-9 | E235.Br-L/VA  | 0.050  | mg/L     | <0.250 <sup>DLDS</sup>  | <0.050            | <0.250 <sup>DLDS</sup>  | <0.050            | <0.050            |      |      |
| Chloride                               | 16887-00-6 | E235.Cl/VA    | 0.50   | mg/L     | <2.50 <sup>DLDS</sup>   | <0.50             | <2.50 <sup>DLDS</sup>   | <0.50             | <0.50             |      |      |
| Fluoride                               | 16984-48-8 | E235.F/VA     | 0.020  | mg/L     | 0.103                   | <0.020            | <0.100 <sup>DLDS</sup>  | 0.132             | 0.128             |      |      |
| Kjeldahl nitrogen, total [TKN]         | ----       | E318/VA       | 0.050  | mg/L     | ----                    | ----              | ----                    | 0.076             | 0.059             |      |      |
| Nitrate (as N)                         | 14797-55-8 | E235.NO3-L/VA | 0.0050 | mg/L     | 0.109                   | <0.0050           | 0.108                   | 0.283             | 0.282             |      |      |
| Nitrite (as N)                         | 14797-65-0 | E235.NO2-L/VA | 0.0010 | mg/L     | <0.0050 <sup>DLDS</sup> | <0.0010           | <0.0050 <sup>DLDS</sup> | <0.0010           | <0.0010           |      |      |
| Phosphate, ortho-, dissolved (as P)    | 14265-44-2 | E378-U/VA     | 0.0010 | mg/L     | ----                    | ----              | ----                    | <0.0010           | <0.0010           |      |      |
| Phosphorus, total                      | 7723-14-0  | E372-U/VA     | 0.0020 | mg/L     | ----                    | ----              | ----                    | <0.0020           | <0.0020           |      |      |



## Analytical Results

Sub-Matrix: Water

(Matrix: Water)

| Sub-Matrix: Water<br>(Matrix: Water) |            |             |           |      | Client sample ID  |               | 3-4               | 3-14              | 3-16              | 3-10              | 3-11 |
|--------------------------------------|------------|-------------|-----------|------|-------------------|---------------|-------------------|-------------------|-------------------|-------------------|------|
| Client sampling date / time          |            |             |           |      | 12-Nov-2024 23:00 |               | 13-Nov-2024 08:30 | 13-Nov-2024 08:15 | 13-Nov-2024 10:00 | 13-Nov-2024 10:15 |      |
| Analyte                              | CAS Number | Method/Lab  | LOR       | Unit | FJ2403498-001     | FJ2403498-002 | FJ2403498-003     | FJ2403498-004     | FJ2403498-005     |                   |      |
|                                      |            |             |           |      | Result            | Result        | Result            | Result            | Result            |                   |      |
| Anions and Nutrients                 |            |             |           |      |                   |               |                   |                   |                   |                   |      |
| Phosphorus, total dissolved          | 7723-14-0  | E375-T/VA   | 0.0020    | mg/L | ----              | ----          | ----              | <0.0020           | <0.0020           |                   |      |
| Sulfate (as SO4)                     | 14808-79-8 | E235.SO4/VA | 0.30      | mg/L | 439               | <0.30         | 437               | 130               | 138               |                   |      |
| Organic / Inorganic Carbon           |            |             |           |      |                   |               |                   |                   |                   |                   |      |
| Carbon, dissolved organic [DOC]      | ----       | E358-L/VA   | 0.50      | mg/L | <0.50             | <0.50         | 1.40              | 0.64              | <0.50             |                   |      |
| Total Metals                         |            |             |           |      |                   |               |                   |                   |                   |                   |      |
| Aluminum, total                      | 7429-90-5  | E420/VA     | 0.0030    | mg/L | <0.0030           | <0.0030       | <0.0030           | 0.0041            | 0.0057            |                   |      |
| Antimony, total                      | 7440-36-0  | E420/VA     | 0.00010   | mg/L | 0.0252            | <0.00010      | 0.0236            | 0.00013           | 0.00026           |                   |      |
| Arsenic, total                       | 7440-38-2  | E420/VA     | 0.00010   | mg/L | 0.00184           | <0.00010      | 0.00179           | 0.00030           | 0.00032           |                   |      |
| Barium, total                        | 7440-39-3  | E420/VA     | 0.00010   | mg/L | 0.0200            | <0.00010      | 0.0192            | 0.0774            | 0.0760            |                   |      |
| Beryllium, total                     | 7440-41-7  | E420/VA     | 0.000100  | mg/L | <0.000100         | <0.000100     | <0.000100         | <0.000100         | <0.000100         |                   |      |
| Bismuth, total                       | 7440-69-9  | E420/VA     | 0.000050  | mg/L | <0.000050         | <0.000050     | <0.000050         | <0.000050         | <0.000050         |                   |      |
| Boron, total                         | 7440-42-8  | E420/VA     | 0.010     | mg/L | 0.012             | <0.010        | 0.013             | <0.010            | <0.010            |                   |      |
| Cadmium, total                       | 7440-43-9  | E420/VA     | 0.0000050 | mg/L | 0.00290           | <0.0000050    | 0.00284           | 0.0000268         | 0.0000506         |                   |      |
| Calcium, total                       | 7440-70-2  | E420/VA     | 0.050     | mg/L | 149               | <0.050        | 151               | 64.5              | 72.1              |                   |      |
| Cesium, total                        | 7440-46-2  | E420/VA     | 0.000010  | mg/L | 0.000075          | <0.000010     | 0.000075          | <0.000010         | <0.000010         |                   |      |
| Chromium, total                      | 7440-47-3  | E420/VA     | 0.00050   | mg/L | <0.00050          | <0.00050      | <0.00050          | <0.00050          | <0.00050          |                   |      |
| Cobalt, total                        | 7440-48-4  | E420/VA     | 0.00010   | mg/L | 0.00066           | <0.00010      | 0.00063           | <0.00010          | <0.00010          |                   |      |
| Copper, total                        | 7440-50-8  | E420/VA     | 0.00050   | mg/L | <0.00050          | <0.00050      | <0.00050          | <0.00050          | <0.00050          |                   |      |
| Iron, total                          | 7439-89-6  | E420/VA     | 0.010     | mg/L | 0.756             | <0.010        | 0.728             | <0.010            | <0.010            |                   |      |
| Lead, total                          | 7439-92-1  | E420/VA     | 0.000050  | mg/L | 0.000214          | <0.000050     | 0.000203          | <0.000050         | 0.000082          |                   |      |
| Lithium, total                       | 7439-93-2  | E420/VA     | 0.0010    | mg/L | 0.0056            | <0.0010       | 0.0062            | 0.0028            | 0.0035            |                   |      |



## Analytical Results

Sub-Matrix: Water  
 (Matrix: Water)

| Sub-Matrix: Water<br>(Matrix: Water) |            |            |           |      | Client sample ID  | 3-4               | 3-14                    | 3-16              | 3-10              | 3-11 |
|--------------------------------------|------------|------------|-----------|------|-------------------|-------------------|-------------------------|-------------------|-------------------|------|
| Client sampling date / time          |            |            |           |      | 12-Nov-2024 23:00 | 13-Nov-2024 08:30 | 13-Nov-2024 08:15       | 13-Nov-2024 10:00 | 13-Nov-2024 10:15 |      |
| Analyte                              | CAS Number | Method/Lab | LOR       | Unit | FJ2403498-001     | FJ2403498-002     | FJ2403498-003           | FJ2403498-004     | FJ2403498-005     |      |
|                                      |            |            |           |      | Result            | Result            | Result                  | Result            | Result            |      |
| Total Metals                         |            |            |           |      |                   |                   |                         |                   |                   |      |
| Magnesium, total                     | 7439-95-4  | E420/VA    | 0.0050    | mg/L | 80.0              | <0.0050           | 77.6                    | 35.2              | 36.8              |      |
| Manganese, total                     | 7439-96-5  | E420/VA    | 0.00010   | mg/L | 0.0272            | <0.00010          | 0.0262                  | 0.00014           | 0.00014           |      |
| Mercury, total                       | 7439-97-6  | E508/VA    | 0.0000050 | mg/L | <0.0000050        | <0.0000050        | <0.0000050              | <0.0000050        | <0.0000050        |      |
| Molybdenum, total                    | 7439-98-7  | E420/VA    | 0.000050  | mg/L | 0.00359           | <0.000050         | 0.00364                 | 0.00313           | 0.00363           |      |
| Nickel, total                        | 7440-02-0  | E420/VA    | 0.00050   | mg/L | 0.00806           | <0.00050          | 0.00780                 | 0.00136           | 0.00143           |      |
| Phosphorus, total                    | 7723-14-0  | E420/VA    | 0.050     | mg/L | <0.050            | <0.050            | <0.050                  | <0.050            | <0.050            |      |
| Potassium, total                     | 7440-09-7  | E420/VA    | 0.050     | mg/L | 1.59              | <0.050            | 1.67                    | 0.442             | 0.457             |      |
| Rubidium, total                      | 7440-17-7  | E420/VA    | 0.00020   | mg/L | 0.00221           | <0.00020          | 0.00208                 | 0.00020           | 0.00024           |      |
| Selenium, total                      | 7782-49-2  | E420/VA    | 0.000050  | mg/L | 0.00204           | <0.000050         | 0.00189                 | 0.00181           | 0.00192           |      |
| Silicon, total                       | 7440-21-3  | E420/VA    | 0.10      | mg/L | 2.69              | <0.10             | 2.44                    | 2.14              | 2.10              |      |
| Silver, total                        | 7440-22-4  | E420/VA    | 0.000010  | mg/L | <0.000010         | <0.000010         | <0.000010               | <0.000010         | <0.000010         |      |
| Sodium, total                        | 7440-23-5  | E420/VA    | 0.050     | mg/L | 13.0              | <0.050            | 13.2                    | 2.86              | 2.88              |      |
| Strontium, total                     | 7440-24-6  | E420/VA    | 0.00020   | mg/L | 0.649             | <0.00020          | 0.657                   | 0.390             | 0.443             |      |
| Sulfur, total                        | 7704-34-9  | E420/VA    | 0.50      | mg/L | 161               | <0.50             | 154                     | 46.6              | 50.1              |      |
| Tellurium, total                     | 13494-80-9 | E420/VA    | 0.00020   | mg/L | 0.00021           | <0.00020          | 0.00022                 | <0.00020          | <0.00020          |      |
| Thallium, total                      | 7440-28-0  | E420/VA    | 0.000010  | mg/L | 0.000033          | <0.000010         | 0.000030                | <0.000010         | <0.000010         |      |
| Thorium, total                       | 7440-29-1  | E420/VA    | 0.00010   | mg/L | <0.00010          | <0.00010          | <0.00010                | <0.00010          | <0.00010          |      |
| Tin, total                           | 7440-31-5  | E420/VA    | 0.00010   | mg/L | <0.00010          | <0.00010          | <0.00010                | <0.00010          | <0.00010          |      |
| Titanium, total                      | 7440-32-6  | E420/VA    | 0.00030   | mg/L | 0.00181           | <0.00030          | <0.00210 <sup>DLM</sup> | <0.00030          | <0.00030          |      |
| Tungsten, total                      | 7440-33-7  | E420/VA    | 0.00010   | mg/L | <0.00010          | <0.00010          | <0.00010                | <0.00010          | <0.00010          |      |
| Uranium, total                       | 7440-61-1  | E420/VA    | 0.000010  | mg/L | 0.0316            | <0.000010         | 0.0306                  | 0.00551           | 0.00711           |      |



## Analytical Results

Sub-Matrix: Water  
 (Matrix: Water)

|                             |            |            |           |      | Client sample ID | 3-4               | 3-14              | 3-16              | 3-10              | 3-11              |
|-----------------------------|------------|------------|-----------|------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Client sampling date / time |            |            |           |      |                  | 12-Nov-2024 23:00 | 13-Nov-2024 08:30 | 13-Nov-2024 08:15 | 13-Nov-2024 10:00 | 13-Nov-2024 10:15 |
| Analyte                     | CAS Number | Method/Lab | LOR       | Unit | FJ2403498-001    | FJ2403498-002     | FJ2403498-003     | FJ2403498-004     | FJ2403498-005     |                   |
|                             |            |            |           |      | Result           | Result            | Result            | Result            | Result            |                   |
| Total Metals                |            |            |           |      |                  |                   |                   |                   |                   |                   |
| Vanadium, total             | 7440-62-2  | E420/VA    | 0.00050   | mg/L | <0.00050         | <0.00050          | <0.00050          | <0.00050          | <0.00050          | <0.00050          |
| Zinc, total                 | 7440-66-6  | E420/VA    | 0.0030    | mg/L | 0.430            | <0.0030           | 0.382             | 0.0111            | 0.0184            |                   |
| Zirconium, total            | 7440-67-7  | E420/VA    | 0.00020   | mg/L | <0.00020         | <0.00020          | <0.00020          | <0.00020          | <0.00020          | <0.00020          |
| Dissolved Metals            |            |            |           |      |                  |                   |                   |                   |                   |                   |
| Aluminum, dissolved         | 7429-90-5  | E421/VA    | 0.0010    | mg/L | ----             | ----              | ----              | <0.0010           | 0.0010            |                   |
| Antimony, dissolved         | 7440-36-0  | E421/VA    | 0.00010   | mg/L | ----             | ----              | ----              | 0.00013           | 0.00024           |                   |
| Arsenic, dissolved          | 7440-38-2  | E421/VA    | 0.00010   | mg/L | ----             | ----              | ----              | 0.00025           | 0.00029           |                   |
| Barium, dissolved           | 7440-39-3  | E421/VA    | 0.00010   | mg/L | ----             | ----              | ----              | 0.0734            | 0.0726            |                   |
| Beryllium, dissolved        | 7440-41-7  | E421/VA    | 0.000100  | mg/L | ----             | ----              | ----              | <0.000100         | <0.000100         |                   |
| Bismuth, dissolved          | 7440-69-9  | E421/VA    | 0.000050  | mg/L | ----             | ----              | ----              | <0.000050         | <0.000050         |                   |
| Boron, dissolved            | 7440-42-8  | E421/VA    | 0.010     | mg/L | ----             | ----              | ----              | <0.010            | <0.010            |                   |
| Cadmium, dissolved          | 7440-43-9  | E421/VA    | 0.0000050 | mg/L | ----             | ----              | ----              | 0.0000208         | 0.0000285         |                   |
| Calcium, dissolved          | 7440-70-2  | E421/VA    | 0.050     | mg/L | ----             | ----              | ----              | 78.5              | 80.1              |                   |
| Cesium, dissolved           | 7440-46-2  | E421/VA    | 0.000010  | mg/L | ----             | ----              | ----              | <0.000010         | <0.000010         |                   |
| Chromium, dissolved         | 7440-47-3  | E421/VA    | 0.00050   | mg/L | ----             | ----              | ----              | <0.00050          | <0.00050          |                   |
| Cobalt, dissolved           | 7440-48-4  | E421/VA    | 0.00010   | mg/L | ----             | ----              | ----              | <0.00010          | <0.00010          |                   |
| Copper, dissolved           | 7440-50-8  | E421/VA    | 0.00020   | mg/L | ----             | ----              | ----              | <0.00020          | <0.00020          |                   |
| Iron, dissolved             | 7439-89-6  | E421/VA    | 0.010     | mg/L | ----             | ----              | ----              | <0.010            | <0.010            |                   |
| Lead, dissolved             | 7439-92-1  | E421/VA    | 0.000050  | mg/L | ----             | ----              | ----              | <0.000050         | <0.000050         |                   |
| Lithium, dissolved          | 7439-93-2  | E421/VA    | 0.0010    | mg/L | ----             | ----              | ----              | 0.0032            | 0.0035            |                   |
| Magnesium, dissolved        | 7439-95-4  | E421/VA    | 0.0050    | mg/L | ----             | ----              | ----              | 34.2              | 36.4              |                   |



## Analytical Results

Sub-Matrix: Water  
 (Matrix: Water)

|                             |            |            |           |      | Client sample ID  |                   |                   |                   |                   |
|-----------------------------|------------|------------|-----------|------|-------------------|-------------------|-------------------|-------------------|-------------------|
|                             |            |            |           |      | 3-4               | 3-14              | 3-16              | 3-10              | 3-11              |
| Client sampling date / time |            |            |           |      | 12-Nov-2024 23:00 | 13-Nov-2024 08:30 | 13-Nov-2024 08:15 | 13-Nov-2024 10:00 | 13-Nov-2024 10:15 |
| Analyte                     | CAS Number | Method/Lab | LOR       | Unit | FJ2403498-001     | FJ2403498-002     | FJ2403498-003     | FJ2403498-004     | FJ2403498-005     |
|                             |            |            |           |      | Result            | Result            | Result            | Result            | Result            |
| Dissolved Metals            |            |            |           |      |                   |                   |                   |                   |                   |
| Manganese, dissolved        | 7439-96-5  | E421/VA    | 0.00010   | mg/L | ----              | ----              | ----              | <0.00010          | <0.00010          |
| Mercury, dissolved          | 7439-97-6  | E509/VA    | 0.0000050 | mg/L | ----              | ----              | ----              | <0.0000050        | <0.0000050        |
| Molybdenum, dissolved       | 7439-98-7  | E421/VA    | 0.000050  | mg/L | ----              | ----              | ----              | 0.00330           | 0.00342           |
| Nickel, dissolved           | 7440-02-0  | E421/VA    | 0.00050   | mg/L | ----              | ----              | ----              | 0.00128           | 0.00144           |
| Phosphorus, dissolved       | 7723-14-0  | E421/VA    | 0.050     | mg/L | ----              | ----              | ----              | <0.050            | <0.050            |
| Potassium, dissolved        | 7440-09-7  | E421/VA    | 0.050     | mg/L | ----              | ----              | ----              | 0.442             | 0.470             |
| Rubidium, dissolved         | 7440-17-7  | E421/VA    | 0.00020   | mg/L | ----              | ----              | ----              | 0.00022           | 0.00020           |
| Selenium, dissolved         | 7782-49-2  | E421/VA    | 0.000050  | mg/L | ----              | ----              | ----              | 0.00180           | 0.00186           |
| Silicon, dissolved          | 7440-21-3  | E421/VA    | 0.050     | mg/L | ----              | ----              | ----              | 1.97              | 2.03              |
| Silver, dissolved           | 7440-22-4  | E421/VA    | 0.000010  | mg/L | ----              | ----              | ----              | <0.000010         | <0.000010         |
| Sodium, dissolved           | 7440-23-5  | E421/VA    | 0.050     | mg/L | ----              | ----              | ----              | 2.70              | 2.79              |
| Strontium, dissolved        | 7440-24-6  | E421/VA    | 0.00020   | mg/L | ----              | ----              | ----              | 0.426             | 0.429             |
| Sulfur, dissolved           | 7704-34-9  | E421/VA    | 0.50      | mg/L | ----              | ----              | ----              | 45.3              | 48.5              |
| Tellurium, dissolved        | 13494-80-9 | E421/VA    | 0.00020   | mg/L | ----              | ----              | ----              | <0.00020          | <0.00020          |
| Thallium, dissolved         | 7440-28-0  | E421/VA    | 0.000010  | mg/L | ----              | ----              | ----              | <0.000010         | <0.000010         |
| Thorium, dissolved          | 7440-29-1  | E421/VA    | 0.00010   | mg/L | ----              | ----              | ----              | <0.00010          | <0.00010          |
| Tin, dissolved              | 7440-31-5  | E421/VA    | 0.00010   | mg/L | ----              | ----              | ----              | <0.00010          | <0.00010          |
| Titanium, dissolved         | 7440-32-6  | E421/VA    | 0.00030   | mg/L | ----              | ----              | ----              | <0.00030          | <0.00030          |
| Tungsten, dissolved         | 7440-33-7  | E421/VA    | 0.00010   | mg/L | ----              | ----              | ----              | <0.00010          | <0.00010          |
| Uranium, dissolved          | 7440-61-1  | E421/VA    | 0.000010  | mg/L | ----              | ----              | ----              | 0.00634           | 0.00711           |
| Vanadium, dissolved         | 7440-62-2  | E421/VA    | 0.00050   | mg/L | ----              | ----              | ----              | <0.00050          | <0.00050          |



## Analytical Results

| Sub-Matrix: Water<br>(Matrix: Water)  |            |            |         |      | Client sample ID | 3-4               | 3-14              | 3-16              | 3-10              | 3-11              |
|---------------------------------------|------------|------------|---------|------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Client sampling date / time           |            |            |         |      |                  | 12-Nov-2024 23:00 | 13-Nov-2024 08:30 | 13-Nov-2024 08:15 | 13-Nov-2024 10:00 | 13-Nov-2024 10:15 |
| Analyte                               | CAS Number | Method/Lab | LOR     | Unit |                  | FJ2403498-001     | FJ2403498-002     | FJ2403498-003     | FJ2403498-004     | FJ2403498-005     |
|                                       |            |            |         |      |                  | Result            | Result            | Result            | Result            | Result            |
| Dissolved Metals                      |            |            |         |      |                  |                   |                   |                   |                   |                   |
| Zinc, dissolved                       | 7440-66-6  | E421/VA    | 0.0010  | mg/L |                  | 0.0026            | <0.0010           | 0.0025            | 0.0095            | 0.0141            |
| Zirconium, dissolved                  | 7440-67-7  | E421/VA    | 0.00020 | mg/L |                  | ----              | ----              | ----              | <0.00020          | <0.00020          |
| Dissolved mercury filtration location | ----       | EP509/VA   | -       | -    |                  | ----              | ----              | ----              | Field             | Field             |
| Dissolved metals filtration location  | ----       | EP421/VA   | -       | -    |                  | Field             | Field             | Field             | Field             | Field             |

Please refer to the General Comments section for an explanation of any result qualifiers detected.

## Analytical Results

| Sub-Matrix: Water<br>(Matrix: Water)                |            |            |      |          | Client sample ID | 3-13              | 3-7               | ---- | ---- | ---- |
|-----------------------------------------------------|------------|------------|------|----------|------------------|-------------------|-------------------|------|------|------|
| Client sampling date / time                         |            |            |      |          |                  | 13-Nov-2024 10:30 | 13-Nov-2024 07:45 | ---- | ---- | ---- |
| Analyte                                             | CAS Number | Method/Lab | LOR  | Unit     |                  | FJ2403498-006     | FJ2403498-007     | ---- | ---- | ---- |
|                                                     |            |            |      |          |                  | Result            | Result            | ---- | ---- | ---- |
| Physical Tests                                      |            |            |      |          |                  |                   |                   |      |      |      |
| Alkalinity, bicarbonate (as CaCO <sub>3</sub> )     | ----       | E290/VA    | 1.0  | mg/L     |                  | 205               | 291               | ---- | ---- | ---- |
| Alkalinity, carbonate (as CaCO <sub>3</sub> )       | ----       | E290/VA    | 1.0  | mg/L     |                  | 4.8               | <1.0              | ---- | ---- | ---- |
| Alkalinity, hydroxide (as CaCO <sub>3</sub> )       | ----       | E290/VA    | 1.0  | mg/L     |                  | <1.0              | <1.0              | ---- | ---- | ---- |
| Alkalinity, phenolphthalein (as CaCO <sub>3</sub> ) | ----       | E290/VA    | 1.0  | mg/L     |                  | 2.4               | <1.0              | ---- | ---- | ---- |
| Alkalinity, total (as CaCO <sub>3</sub> )           | ----       | E290/VA    | 1.0  | mg/L     |                  | 209               | 291               | ---- | ---- | ---- |
| Conductivity                                        | ----       | E100/VA    | 2.0  | µS/cm    |                  | 618               | 1180              | ---- | ---- | ---- |
| Hardness (as CaCO <sub>3</sub> ), dissolved         | ----       | EC100/VA   | 0.60 | mg/L     |                  | 351               | 677               | ---- | ---- | ---- |
| Hardness (as CaCO <sub>3</sub> ), from total Ca/Mg  | ----       | EC100A/VA  | 0.60 | mg/L     |                  | 326               | 698               | ---- | ---- | ---- |
| pH                                                  | ----       | E108/VA    | 0.10 | pH units |                  | 8.35              | 8.10              | ---- | ---- | ---- |
| Solids, total dissolved [TDS]                       | ----       | E162/VA    | 10   | mg/L     |                  | 420               | 989               | ---- | ---- | ---- |



## Analytical Results

Sub-Matrix: Water

(Matrix: Water)

| Sub-Matrix: Water<br>(Matrix: Water) |            |               |          |      | Client sample ID  |                         | 3-13 | 3-7  | ---- | ---- | ---- |
|--------------------------------------|------------|---------------|----------|------|-------------------|-------------------------|------|------|------|------|------|
| Client sampling date / time          |            |               |          |      | 13-Nov-2024 10:30 | 13-Nov-2024 07:45       | ---- | ---- | ---- |      |      |
| Analyte                              | CAS Number | Method/Lab    | LOR      | Unit | FJ2403498-006     | FJ2403498-007           | ---- | ---- | ---- |      |      |
|                                      |            |               |          |      | Result            | Result                  | ---- | ---- | ---- |      |      |
| Physical Tests                       |            |               |          |      |                   |                         |      |      |      |      |      |
| Solids, total suspended [TSS]        | ----       | E160/VA       | 3.0      | mg/L | <3.0              | 6.4                     | ---- | ---- | ---- |      |      |
| Anions and Nutrients                 |            |               |          |      |                   |                         |      |      |      |      |      |
| Ammonia, total (as N)                | 7664-41-7  | E298/VA       | 0.0050   | mg/L | <0.0050           | 0.0288                  | ---- | ---- | ---- |      |      |
| Bromide                              | 24959-67-9 | E235.Br-L/VA  | 0.050    | mg/L | <0.050            | <0.250 <sup>DLDS</sup>  | ---- | ---- | ---- |      |      |
| Chloride                             | 16887-00-6 | E235.Cl/VA    | 0.50     | mg/L | <0.50             | <2.50 <sup>DLDS</sup>   | ---- | ---- | ---- |      |      |
| Fluoride                             | 16984-48-8 | E235.F/VA     | 0.020    | mg/L | 0.127             | 0.100                   | ---- | ---- | ---- |      |      |
| Kjeldahl nitrogen, total [TKN]       | ----       | E318/VA       | 0.050    | mg/L | <0.050            | 0.072                   | ---- | ---- | ---- |      |      |
| Nitrate (as N)                       | 14797-55-8 | E235.NO3-L/VA | 0.0050   | mg/L | 0.280             | 0.102                   | ---- | ---- | ---- |      |      |
| Nitrite (as N)                       | 14797-65-0 | E235.NO2-L/VA | 0.0010   | mg/L | <0.0010           | <0.0050 <sup>DLDS</sup> | ---- | ---- | ---- |      |      |
| Phosphate, ortho-, dissolved (as P)  | 14265-44-2 | E378-U/VA     | 0.0010   | mg/L | <0.0010           | <0.0010                 | ---- | ---- | ---- |      |      |
| Phosphorus, total                    | 7723-14-0  | E372-U/VA     | 0.0020   | mg/L | <0.0020           | 0.0442                  | ---- | ---- | ---- |      |      |
| Phosphorus, total dissolved          | 7723-14-0  | E375-T/VA     | 0.0020   | mg/L | <0.0020           | <0.0020                 | ---- | ---- | ---- |      |      |
| Sulfate (as SO4)                     | 14808-79-8 | E235.SO4/VA   | 0.30     | mg/L | 138               | 428                     | ---- | ---- | ---- |      |      |
| Organic / Inorganic Carbon           |            |               |          |      |                   |                         |      |      |      |      |      |
| Carbon, dissolved organic [DOC]      | ----       | E358-L/VA     | 0.50     | mg/L | 0.65              | 1.10                    | ---- | ---- | ---- |      |      |
| Total Metals                         |            |               |          |      |                   |                         |      |      |      |      |      |
| Aluminum, total                      | 7429-90-5  | E420/VA       | 0.0030   | mg/L | 0.0061            | 0.185                   | ---- | ---- | ---- |      |      |
| Antimony, total                      | 7440-36-0  | E420/VA       | 0.00010  | mg/L | 0.00021           | 0.0321                  | ---- | ---- | ---- |      |      |
| Arsenic, total                       | 7440-38-2  | E420/VA       | 0.00010  | mg/L | 0.00032           | 0.0141                  | ---- | ---- | ---- |      |      |
| Barium, total                        | 7440-39-3  | E420/VA       | 0.00010  | mg/L | 0.0769            | 0.0288                  | ---- | ---- | ---- |      |      |
| Beryllium, total                     | 7440-41-7  | E420/VA       | 0.000100 | mg/L | <0.000100         | <0.000100               | ---- | ---- | ---- |      |      |



## Analytical Results

Sub-Matrix: Water

(Matrix: Water)

|                   |            |            |           |      | Client sample ID            |               | 3-13              | 3-7               | ---- | ---- | ---- |
|-------------------|------------|------------|-----------|------|-----------------------------|---------------|-------------------|-------------------|------|------|------|
|                   |            |            |           |      | Client sampling date / time |               | 13-Nov-2024 10:30 | 13-Nov-2024 07:45 | ---- | ---- | ---- |
| Analyte           | CAS Number | Method/Lab | LOR       | Unit | FJ2403498-006               | FJ2403498-007 | ----              | ----              | ---- | ---- | ---- |
|                   |            |            |           |      | Result                      | Result        | ----              | ----              | ---- | ---- | ---- |
| Total Metals      |            |            |           |      |                             |               |                   |                   |      |      |      |
| Bismuth, total    | 7440-69-9  | E420/VA    | 0.000050  | mg/L | <0.000050                   | <0.000050     | ----              | ----              | ---- | ---- | ---- |
| Boron, total      | 7440-42-8  | E420/VA    | 0.010     | mg/L | <0.010                      | 0.012         | ----              | ----              | ---- | ---- | ---- |
| Cadmium, total    | 7440-43-9  | E420/VA    | 0.0000050 | mg/L | 0.0000313                   | 0.0240        | ----              | ----              | ---- | ---- | ---- |
| Calcium, total    | 7440-70-2  | E420/VA    | 0.050     | mg/L | 70.2                        | 144           | ----              | ----              | ---- | ---- | ---- |
| Cesium, total     | 7440-46-2  | E420/VA    | 0.000010  | mg/L | <0.000010                   | 0.000104      | ----              | ----              | ---- | ---- | ---- |
| Chromium, total   | 7440-47-3  | E420/VA    | 0.00050   | mg/L | <0.00050                    | <0.00050      | ----              | ----              | ---- | ---- | ---- |
| Cobalt, total     | 7440-48-4  | E420/VA    | 0.00010   | mg/L | <0.00010                    | 0.00045       | ----              | ----              | ---- | ---- | ---- |
| Copper, total     | 7440-50-8  | E420/VA    | 0.00050   | mg/L | <0.00050                    | 0.0124        | ----              | ----              | ---- | ---- | ---- |
| Iron, total       | 7439-89-6  | E420/VA    | 0.010     | mg/L | <0.010                      | 1.23          | ----              | ----              | ---- | ---- | ---- |
| Lead, total       | 7439-92-1  | E420/VA    | 0.000050  | mg/L | 0.000111                    | 0.0587        | ----              | ----              | ---- | ---- | ---- |
| Lithium, total    | 7439-93-2  | E420/VA    | 0.0010    | mg/L | 0.0034                      | 0.0054        | ----              | ----              | ---- | ---- | ---- |
| Magnesium, total  | 7439-95-4  | E420/VA    | 0.0050    | mg/L | 36.6                        | 82.3          | ----              | ----              | ---- | ---- | ---- |
| Manganese, total  | 7439-96-5  | E420/VA    | 0.00010   | mg/L | 0.00027                     | 0.0233        | ----              | ----              | ---- | ---- | ---- |
| Mercury, total    | 7439-97-6  | E508/VA    | 0.0000050 | mg/L | <0.0000050                  | 0.000229      | ----              | ----              | ---- | ---- | ---- |
| Molybdenum, total | 7439-98-7  | E420/VA    | 0.000050  | mg/L | 0.00329                     | 0.00374       | ----              | ----              | ---- | ---- | ---- |
| Nickel, total     | 7440-02-0  | E420/VA    | 0.00050   | mg/L | 0.00145                     | 0.00950       | ----              | ----              | ---- | ---- | ---- |
| Phosphorus, total | 7723-14-0  | E420/VA    | 0.050     | mg/L | <0.050                      | <0.050        | ----              | ----              | ---- | ---- | ---- |
| Potassium, total  | 7440-09-7  | E420/VA    | 0.050     | mg/L | 0.471                       | 1.70          | ----              | ----              | ---- | ---- | ---- |
| Rubidium, total   | 7440-17-7  | E420/VA    | 0.00020   | mg/L | 0.00023                     | 0.00267       | ----              | ----              | ---- | ---- | ---- |
| Selenium, total   | 7782-49-2  | E420/VA    | 0.000050  | mg/L | 0.00181                     | 0.00215       | ----              | ----              | ---- | ---- | ---- |
| Silicon, total    | 7440-21-3  | E420/VA    | 0.10      | mg/L | 2.07                        | 3.19          | ----              | ----              | ---- | ---- | ---- |





## Analytical Results

Sub-Matrix: Water

(Matrix: Water)

|                      |            |            |          |      | Client sample ID            |               | 3-13              | 3-7               | ---- | ---- | ---- |
|----------------------|------------|------------|----------|------|-----------------------------|---------------|-------------------|-------------------|------|------|------|
|                      |            |            |          |      | Client sampling date / time |               | 13-Nov-2024 10:30 | 13-Nov-2024 07:45 | ---- | ---- | ---- |
| Analyte              | CAS Number | Method/Lab | LOR      | Unit | FJ2403498-006               | FJ2403498-007 | ----              | ----              | ---- | ---- | ---- |
|                      |            |            |          |      | Result                      | Result        | ----              | ----              | ---- | ---- | ---- |
| Total Metals         |            |            |          |      |                             |               |                   |                   |      |      |      |
| Silver, total        | 7440-22-4  | E420/VA    | 0.000010 | mg/L | <0.000010                   | 0.000172      | ----              | ----              | ---- | ---- | ---- |
| Sodium, total        | 7440-23-5  | E420/VA    | 0.050    | mg/L | 2.95                        | 1.31          | ----              | ----              | ---- | ---- | ---- |
| Strontium, total     | 7440-24-6  | E420/VA    | 0.00020  | mg/L | 0.411                       | 0.671         | ----              | ----              | ---- | ---- | ---- |
| Sulfur, total        | 7704-34-9  | E420/VA    | 0.50     | mg/L | 48.6                        | 152           | ----              | ----              | ---- | ---- | ---- |
| Tellurium, total     | 13494-80-9 | E420/VA    | 0.00020  | mg/L | <0.00020                    | <0.00020      | ----              | ----              | ---- | ---- | ---- |
| Thallium, total      | 7440-28-0  | E420/VA    | 0.000010 | mg/L | <0.000010                   | 0.000233      | ----              | ----              | ---- | ---- | ---- |
| Thorium, total       | 7440-29-1  | E420/VA    | 0.00010  | mg/L | <0.00010                    | <0.00030 DLM  | ----              | ----              | ---- | ---- | ---- |
| Tin, total           | 7440-31-5  | E420/VA    | 0.00010  | mg/L | <0.00010                    | <0.00010      | ----              | ----              | ---- | ---- | ---- |
| Titanium, total      | 7440-32-6  | E420/VA    | 0.00030  | mg/L | <0.00030                    | 0.00472       | ----              | ----              | ---- | ---- | ---- |
| Tungsten, total      | 7440-33-7  | E420/VA    | 0.00010  | mg/L | <0.00010                    | <0.00010      | ----              | ----              | ---- | ---- | ---- |
| Uranium, total       | 7440-61-1  | E420/VA    | 0.000010 | mg/L | 0.00641                     | 0.0324        | ----              | ----              | ---- | ---- | ---- |
| Vanadium, total      | 7440-62-2  | E420/VA    | 0.00050  | mg/L | <0.00050                    | 0.00077       | ----              | ----              | ---- | ---- | ---- |
| Zinc, total          | 7440-66-6  | E420/VA    | 0.0030   | mg/L | 0.0215                      | 3.86          | ----              | ----              | ---- | ---- | ---- |
| Zirconium, total     | 7440-67-7  | E420/VA    | 0.00020  | mg/L | <0.00020                    | <0.00040 DLM  | ----              | ----              | ---- | ---- | ---- |
| Dissolved Metals     |            |            |          |      |                             |               |                   |                   |      |      |      |
| Aluminum, dissolved  | 7429-90-5  | E421/VA    | 0.0010   | mg/L | 0.0012                      | <0.0010       | ----              | ----              | ---- | ---- | ---- |
| Antimony, dissolved  | 7440-36-0  | E421/VA    | 0.00010  | mg/L | 0.00019                     | 0.0270        | ----              | ----              | ---- | ---- | ---- |
| Arsenic, dissolved   | 7440-38-2  | E421/VA    | 0.00010  | mg/L | 0.00029                     | 0.00756       | ----              | ----              | ---- | ---- | ---- |
| Barium, dissolved    | 7440-39-3  | E421/VA    | 0.00010  | mg/L | 0.0704                      | 0.0190        | ----              | ----              | ---- | ---- | ---- |
| Beryllium, dissolved | 7440-41-7  | E421/VA    | 0.000100 | mg/L | <0.000100                   | <0.000100     | ----              | ----              | ---- | ---- | ---- |
| Bismuth, dissolved   | 7440-69-9  | E421/VA    | 0.000050 | mg/L | <0.000050                   | <0.000050     | ----              | ----              | ---- | ---- | ---- |



## Analytical Results

Sub-Matrix: Water

(Matrix: Water)

|                       |            |            |           |      | Client sample ID            | 3-13              | 3-7               | ---- | ---- | ---- |
|-----------------------|------------|------------|-----------|------|-----------------------------|-------------------|-------------------|------|------|------|
|                       |            |            |           |      | Client sampling date / time | 13-Nov-2024 10:30 | 13-Nov-2024 07:45 | ---- | ---- | ---- |
| Analyte               | CAS Number | Method/Lab | LOR       | Unit | FJ2403498-006               | FJ2403498-007     | ----              | ---- | ---- | ---- |
|                       |            |            |           |      | Result                      | Result            | ----              | ---- | ---- | ---- |
| Dissolved Metals      |            |            |           |      |                             |                   |                   |      |      |      |
| Boron, dissolved      | 7440-42-8  | E421/VA    | 0.010     | mg/L | <0.010                      | 0.010             | ----              | ---- | ---- | ---- |
| Cadmium, dissolved    | 7440-43-9  | E421/VA    | 0.0000050 | mg/L | 0.0000257                   | 0.0103            | ----              | ---- | ---- | ---- |
| Calcium, dissolved    | 7440-70-2  | E421/VA    | 0.050     | mg/L | 79.5                        | 145               | ----              | ---- | ---- | ---- |
| Cesium, dissolved     | 7440-46-2  | E421/VA    | 0.000010  | mg/L | <0.000010                   | 0.000066          | ----              | ---- | ---- | ---- |
| Chromium, dissolved   | 7440-47-3  | E421/VA    | 0.00050   | mg/L | <0.00050                    | <0.00050          | ----              | ---- | ---- | ---- |
| Cobalt, dissolved     | 7440-48-4  | E421/VA    | 0.00010   | mg/L | <0.00010                    | 0.00024           | ----              | ---- | ---- | ---- |
| Copper, dissolved     | 7440-50-8  | E421/VA    | 0.00020   | mg/L | <0.00020                    | <0.00020          | ----              | ---- | ---- | ---- |
| Iron, dissolved       | 7439-89-6  | E421/VA    | 0.010     | mg/L | <0.010                      | 0.293             | ----              | ---- | ---- | ---- |
| Lead, dissolved       | 7439-92-1  | E421/VA    | 0.000050  | mg/L | 0.000065                    | 0.000265          | ----              | ---- | ---- | ---- |
| Lithium, dissolved    | 7439-93-2  | E421/VA    | 0.0010    | mg/L | 0.0035                      | 0.0052            | ----              | ---- | ---- | ---- |
| Magnesium, dissolved  | 7439-95-4  | E421/VA    | 0.0050    | mg/L | 37.1                        | 76.4              | ----              | ---- | ---- | ---- |
| Manganese, dissolved  | 7439-96-5  | E421/VA    | 0.00010   | mg/L | <0.00010                    | 0.0124            | ----              | ---- | ---- | ---- |
| Mercury, dissolved    | 7439-97-6  | E509/VA    | 0.0000050 | mg/L | <0.0000050                  | <0.0000050        | ----              | ---- | ---- | ---- |
| Molybdenum, dissolved | 7439-98-7  | E421/VA    | 0.000050  | mg/L | 0.00330                     | 0.00341           | ----              | ---- | ---- | ---- |
| Nickel, dissolved     | 7440-02-0  | E421/VA    | 0.00050   | mg/L | 0.00142                     | 0.00772           | ----              | ---- | ---- | ---- |
| Phosphorus, dissolved | 7723-14-0  | E421/VA    | 0.050     | mg/L | <0.050                      | <0.050            | ----              | ---- | ---- | ---- |
| Potassium, dissolved  | 7440-09-7  | E421/VA    | 0.050     | mg/L | 0.476                       | 1.57              | ----              | ---- | ---- | ---- |
| Rubidium, dissolved   | 7440-17-7  | E421/VA    | 0.00020   | mg/L | 0.00020                     | 0.00231           | ----              | ---- | ---- | ---- |
| Selenium, dissolved   | 7782-49-2  | E421/VA    | 0.000050  | mg/L | 0.00195                     | 0.00213           | ----              | ---- | ---- | ---- |
| Silicon, dissolved    | 7440-21-3  | E421/VA    | 0.050     | mg/L | 2.04                        | 2.54              | ----              | ---- | ---- | ---- |
| Silver, dissolved     | 7440-22-4  | E421/VA    | 0.000010  | mg/L | <0.000010                   | <0.000010         | ----              | ---- | ---- | ---- |



## Analytical Results

Sub-Matrix: Water

(Matrix: Water)

|                                       |            |            |          |      | Client sample ID            | 3-13              | 3-7               | ---- | ---- | ---- |
|---------------------------------------|------------|------------|----------|------|-----------------------------|-------------------|-------------------|------|------|------|
|                                       |            |            |          |      | Client sampling date / time | 13-Nov-2024 10:30 | 13-Nov-2024 07:45 | ---- | ---- | ---- |
| Analyte                               | CAS Number | Method/Lab | LOR      | Unit | FJ2403498-006               | FJ2403498-007     | ----              | ---- | ---- | ---- |
|                                       |            |            |          |      | Result                      | Result            | ----              | ---- | ---- | ---- |
| Dissolved Metals                      |            |            |          |      |                             |                   |                   |      |      |      |
| Sodium, dissolved                     | 7440-23-5  | E421/VA    | 0.050    | mg/L | 2.81                        | 1.21              | ----              | ---- | ---- | ---- |
| Strontium, dissolved                  | 7440-24-6  | E421/VA    | 0.00020  | mg/L | 0.420                       | 0.652             | ----              | ---- | ---- | ---- |
| Sulfur, dissolved                     | 7704-34-9  | E421/VA    | 0.50     | mg/L | 49.2                        | 146               | ----              | ---- | ---- | ---- |
| Tellurium, dissolved                  | 13494-80-9 | E421/VA    | 0.00020  | mg/L | <0.00020                    | <0.00020          | ----              | ---- | ---- | ---- |
| Thallium, dissolved                   | 7440-28-0  | E421/VA    | 0.000010 | mg/L | <0.000010                   | 0.000196          | ----              | ---- | ---- | ---- |
| Thorium, dissolved                    | 7440-29-1  | E421/VA    | 0.00010  | mg/L | <0.00010                    | <0.00010          | ----              | ---- | ---- | ---- |
| Tin, dissolved                        | 7440-31-5  | E421/VA    | 0.00010  | mg/L | <0.00010                    | <0.00010          | ----              | ---- | ---- | ---- |
| Titanium, dissolved                   | 7440-32-6  | E421/VA    | 0.00030  | mg/L | <0.00030                    | <0.00030          | ----              | ---- | ---- | ---- |
| Tungsten, dissolved                   | 7440-33-7  | E421/VA    | 0.00010  | mg/L | <0.00010                    | <0.00010          | ----              | ---- | ---- | ---- |
| Uranium, dissolved                    | 7440-61-1  | E421/VA    | 0.000010 | mg/L | 0.00691                     | 0.0316            | ----              | ---- | ---- | ---- |
| Vanadium, dissolved                   | 7440-62-2  | E421/VA    | 0.00050  | mg/L | <0.00050                    | <0.00050          | ----              | ---- | ---- | ---- |
| Zinc, dissolved                       | 7440-66-6  | E421/VA    | 0.0010   | mg/L | 0.0179                      | 2.54              | ----              | ---- | ---- | ---- |
| Zirconium, dissolved                  | 7440-67-7  | E421/VA    | 0.00020  | mg/L | <0.00020                    | <0.00020          | ----              | ---- | ---- | ---- |
| Dissolved mercury filtration location | ----       | EP509/VA   | -        | -    | Field                       | Field             | ----              | ---- | ---- | ---- |
| Dissolved metals filtration location  | ----       | EP421/VA   | -        | -    | Field                       | Field             | ----              | ---- | ---- | ---- |
| Volatile Organic Compounds [Fuels]    |            |            |          |      |                             |                   |                   |      |      |      |
| Benzene                               | 71-43-2    | E611A/VA   | 0.50     | µg/L | ----                        | <0.50             | ----              | ---- | ---- | ---- |
| Ethylbenzene                          | 100-41-4   | E611A/VA   | 0.50     | µg/L | ----                        | <0.50             | ----              | ---- | ---- | ---- |
| Methyl-tert-butyl ether [MTBE]        | 1634-04-4  | E611A/VA   | 0.50     | µg/L | ----                        | <0.50             | ----              | ---- | ---- | ---- |
| Styrene                               | 100-42-5   | E611A/VA   | 0.50     | µg/L | ----                        | <0.50             | ----              | ---- | ---- | ---- |
| Toluene                               | 108-88-3   | E611A/VA   | 0.50     | µg/L | ----                        | <0.50             | ----              | ---- | ---- | ---- |



## Analytical Results

Sub-Matrix: Water

(Matrix: Water)

|                                           |             |                   |      |      | Client sample ID            | 3-13              | 3-7               | ---- | ---- | ---- |
|-------------------------------------------|-------------|-------------------|------|------|-----------------------------|-------------------|-------------------|------|------|------|
|                                           |             |                   |      |      | Client sampling date / time | 13-Nov-2024 10:30 | 13-Nov-2024 07:45 | ---- | ---- | ---- |
| Analyte                                   | CAS Number  | Method/Lab        | LOR  | Unit | FJ2403498-006               | FJ2403498-007     | ----              | ---- | ---- | ---- |
|                                           |             |                   |      |      | Result                      | Result            | ----              | ---- | ---- | ---- |
| Volatile Organic Compounds [Fuels]        |             |                   |      |      |                             |                   |                   |      |      |      |
| Xylene, m+p-                              | 179601-23-1 | E611A/VA          | 0.40 | µg/L | ----                        | <0.40             | ----              | ---- | ---- | ---- |
| Xylene, o-                                | 95-47-6     | E611A/VA          | 0.30 | µg/L | ----                        | <0.30             | ----              | ---- | ---- | ---- |
| Xylenes, total                            | 1330-20-7   | E611A/VA          | 0.50 | µg/L | ----                        | <0.50             | ----              | ---- | ---- | ---- |
| Hydrocarbons                              |             |                   |      |      |                             |                   |                   |      |      |      |
| F1 (C6-C10)                               | ----        | E581.VH+F1/V<br>A | 100  | µg/L | ----                        | <100              | ----              | ---- | ---- | ---- |
| F1-BTEX                                   | ----        | EC580/VA          | 100  | µg/L | ----                        | <100              | ----              | ---- | ---- | ---- |
| EPH (C10-C32)                             | ----        | E601A/VA          | 400  | µg/L | ----                        | <400              | ----              | ---- | ---- | ---- |
| Hydrocarbons Surrogates                   |             |                   |      |      |                             |                   |                   |      |      |      |
| Bromobenzotrifluoride, 2- (EPH surrogate) | 392-83-6    | E601A/VA          | 1.0  | %    | ----                        | 92.7              | ----              | ---- | ---- | ---- |
| Dichlorotoluene, 3,4-                     | 95-75-0     | E581.VH+F1/V<br>A | 1.0  | %    | ----                        | 82.2              | ----              | ---- | ---- | ---- |
| Volatile Organic Compounds Surrogates     |             |                   |      |      |                             |                   |                   |      |      |      |
| Bromofluorobenzene, 4-                    | 460-00-4    | E611A/VA          | 1.0  | %    | ----                        | 92.7              | ----              | ---- | ---- | ---- |
| Difluorobenzene, 1,4-                     | 540-36-3    | E611A/VA          | 1.0  | %    | ----                        | 102               | ----              | ---- | ---- | ---- |

Please refer to the General Comments section for an explanation of any result qualifiers detected.

QUALITY CONTROL REPORT

|                         |                                                                  |                         |                                                                       |
|-------------------------|------------------------------------------------------------------|-------------------------|-----------------------------------------------------------------------|
| Work Order              | : FJ2403498                                                      | Page                    | : 1 of 21                                                             |
| Client                  | : NorZinc Ltd.                                                   | Laboratory              | : ALS Environmental - Fort St. John                                   |
| Contact                 | : Andrew Howton                                                  | Account Manager         | : Thomas Chang                                                        |
| Address                 | : 510 Burrard St. Suite 907<br>Vancouver BC Canada V6C 3A8       | Address                 | : 11007 Alaska Road<br>Fort St. John, British Columbia Canada V1J 6P3 |
| Telephone               | : ----                                                           | Telephone               | : +1 250 261 5517                                                     |
| Project                 | : ----                                                           | Date Samples Received   | : 15-Nov-2024 15:55                                                   |
| PO                      | : ----                                                           | Date Analysis Commenced | : 18-Nov-2024                                                         |
| C-O-C number            | : CZNNOV0132024                                                  | Issue Date              | : 26-Nov-2024 16:53                                                   |
| Sampler                 | : ----                                                           |                         |                                                                       |
| Site                    | : Canadian Zinc Water License Surveillance Network Program (SNP) |                         |                                                                       |
| Quote number            | : VA24-NORZ100-001                                               |                         |                                                                       |
| No. of samples received | : 7                                                              |                         |                                                                       |
| No. of samples analysed | : 7                                                              |                         |                                                                       |

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

| Signatories          | Position                                   | Laboratory Department                           |
|----------------------|--------------------------------------------|-------------------------------------------------|
| Daniel Shabestani    | Lab Assistant                              | Vancouver Metals, Burnaby, British Columbia     |
| Erin Sanchez         |                                            | Vancouver Metals, Burnaby, British Columbia     |
| Ghazaleh Khanmirzaei | Analyst                                    | Vancouver Metals, Burnaby, British Columbia     |
| Kevin Duarte         | Supervisor - Metals ICP Instrumentation    | Vancouver Inorganics, Burnaby, British Columbia |
| Kevin Duarte         | Supervisor - Metals ICP Instrumentation    | Vancouver Metals, Burnaby, British Columbia     |
| Monica Ko            | Lab Assistant                              | Vancouver Inorganics, Burnaby, British Columbia |
| Owen Cheng           |                                            | Vancouver Metals, Burnaby, British Columbia     |
| Rebecca Sit          | Supervisor - Organics Extractions          | Vancouver Organics, Burnaby, British Columbia   |
| Tracy Harley         | Supervisor - Water Quality Instrumentation | Vancouver Inorganics, Burnaby, British Columbia |

Page : 2 of 21  
Work Order : FJ2403498  
Client : NorZinc Ltd.  
Project : ----



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## General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.

CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.

DQO = Data Quality Objective.

LOR = Limit of Reporting (detection limit).

RPD = Relative Percent Difference

# = Indicates a QC result that did not meet the ALS DQO.

## Workorder Comments

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Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

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Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

| Sub-Matrix: Water                      |                  |                                        |            |            | Laboratory Duplicate (DUP) Report |          |                 |                  |                      |                  |           |
|----------------------------------------|------------------|----------------------------------------|------------|------------|-----------------------------------|----------|-----------------|------------------|----------------------|------------------|-----------|
| Laboratory sample ID                   | Client sample ID | Analyte                                | CAS Number | Method     | LOR                               | Unit     | Original Result | Duplicate Result | RPD(%) or Difference | Duplicate Limits | Qualifier |
| Physical Tests (QC Lot: 1772408)       |                  |                                        |            |            |                                   |          |                 |                  |                      |                  |           |
| FJ2403498-001                          | 3-4              | pH                                     | ----       | E108       | 0.10                              | pH units | 8.20            | 8.20             | 0.00%                | 4%               | ----      |
| Physical Tests (QC Lot: 1772409)       |                  |                                        |            |            |                                   |          |                 |                  |                      |                  |           |
| FJ2403498-001                          | 3-4              | Alkalinity, bicarbonate (as CaCO3)     | ----       | E290       | 1.0                               | mg/L     | 289             | 292              | 0.861%               | 200%             | ----      |
|                                        |                  | Alkalinity, carbonate (as CaCO3)       | ----       | E290       | 1.0                               | mg/L     | <1.0            | <1.0             | 0.00%                | 200%             | ----      |
|                                        |                  | Alkalinity, hydroxide (as CaCO3)       | ----       | E290       | 1.0                               | mg/L     | <1.0            | <1.0             | 0.00%                | 200%             | ----      |
|                                        |                  | Alkalinity, phenolphthalein (as CaCO3) | ----       | E290       | 1.0                               | mg/L     | <1.0            | <1.0             | 0                    | Diff <2x LOR     | ----      |
|                                        |                  | Alkalinity, total (as CaCO3)           | ----       | E290       | 1.0                               | mg/L     | 289             | 292              | 0.861%               | 20%              | ----      |
| Physical Tests (QC Lot: 1772410)       |                  |                                        |            |            |                                   |          |                 |                  |                      |                  |           |
| FJ2403498-001                          | 3-4              | Conductivity                           | ----       | E100       | 2.0                               | µS/cm    | 1220            | 1220             | 0.329%               | 10%              | ----      |
| Physical Tests (QC Lot: 1774380)       |                  |                                        |            |            |                                   |          |                 |                  |                      |                  |           |
| FJ2403498-001                          | 3-4              | Solids, total dissolved [TDS]          | ----       | E162       | 20                                | mg/L     | 934             | 946              | 1.28%                | 20%              | ----      |
| Physical Tests (QC Lot: 1774381)       |                  |                                        |            |            |                                   |          |                 |                  |                      |                  |           |
| FJ2403498-001                          | 3-4              | Solids, total suspended [TSS]          | ----       | E160       | 3.0                               | mg/L     | 5.0             | 3.8              | 1.2                  | Diff <2x LOR     | ----      |
| Physical Tests (QC Lot: 1776079)       |                  |                                        |            |            |                                   |          |                 |                  |                      |                  |           |
| FJ2403478-001                          | Anonymous        | Solids, total suspended [TSS]          | ----       | E160       | 3.0                               | mg/L     | <3.0            | <3.0             | 0                    | Diff <2x LOR     | ----      |
| Physical Tests (QC Lot: 1776084)       |                  |                                        |            |            |                                   |          |                 |                  |                      |                  |           |
| FJ2403478-001                          | Anonymous        | Solids, total dissolved [TDS]          | ----       | E162       | 20                                | mg/L     | 2020            | 2000             | 0.770%               | 20%              | ----      |
| Anions and Nutrients (QC Lot: 1772411) |                  |                                        |            |            |                                   |          |                 |                  |                      |                  |           |
| FJ2403498-001                          | 3-4              | Fluoride                               | 16984-48-8 | E235.F     | 0.100                             | mg/L     | 0.103           | <0.100           | 0.003                | Diff <2x LOR     | ----      |
| Anions and Nutrients (QC Lot: 1772412) |                  |                                        |            |            |                                   |          |                 |                  |                      |                  |           |
| FJ2403498-001                          | 3-4              | Chloride                               | 16887-00-6 | E235.Cl    | 2.50                              | mg/L     | <2.50           | <2.50            | 0                    | Diff <2x LOR     | ----      |
| Anions and Nutrients (QC Lot: 1772413) |                  |                                        |            |            |                                   |          |                 |                  |                      |                  |           |
| FJ2403498-001                          | 3-4              | Bromide                                | 24959-67-9 | E235.Br-L  | 0.250                             | mg/L     | <0.250          | <0.250           | 0                    | Diff <2x LOR     | ----      |
| Anions and Nutrients (QC Lot: 1772414) |                  |                                        |            |            |                                   |          |                 |                  |                      |                  |           |
| FJ2403498-001                          | 3-4              | Nitrate (as N)                         | 14797-55-8 | E235.NO3-L | 0.0250                            | mg/L     | 0.109           | 0.108            | 0.0010               | Diff <2x LOR     | ----      |
| Anions and Nutrients (QC Lot: 1772415) |                  |                                        |            |            |                                   |          |                 |                  |                      |                  |           |
| FJ2403498-001                          | 3-4              | Nitrite (as N)                         | 14797-65-0 | E235.NO2-L | 0.0050                            | mg/L     | <0.0050         | <0.0050          | 0                    | Diff <2x LOR     | ----      |
| Anions and Nutrients (QC Lot: 1772416) |                  |                                        |            |            |                                   |          |                 |                  |                      |                  |           |
| FJ2403498-001                          | 3-4              | Sulfate (as SO4)                       | 14808-79-8 | E235.SO4   | 1.50                              | mg/L     | 439             | 434              | 1.24%                | 20%              | ----      |



| Sub-Matrix: Water                            |                  |                                     |            |        | Laboratory Duplicate (DUP) Report |      |                 |                  |                      |                  |           |
|----------------------------------------------|------------------|-------------------------------------|------------|--------|-----------------------------------|------|-----------------|------------------|----------------------|------------------|-----------|
| Laboratory sample ID                         | Client sample ID | Analyte                             | CAS Number | Method | LOR                               | Unit | Original Result | Duplicate Result | RPD(%) or Difference | Duplicate Limits | Qualifier |
| Anions and Nutrients (QC Lot: 1772417)       |                  |                                     |            |        |                                   |      |                 |                  |                      |                  |           |
| FJ2403498-004                                | 3-10             | Phosphate, ortho-, dissolved (as P) | 14265-44-2 | E378-U | 0.0010                            | mg/L | <0.0010         | <0.0010          | 0                    | Diff <2x LOR     | ----      |
| Anions and Nutrients (QC Lot: 1772946)       |                  |                                     |            |        |                                   |      |                 |                  |                      |                  |           |
| FJ2403498-004                                | 3-10             | Phosphorus, total dissolved         | 7723-14-0  | E375-T | 0.0020                            | mg/L | <0.0020         | <0.0020          | 0                    | Diff <2x LOR     | ----      |
| Anions and Nutrients (QC Lot: 1774056)       |                  |                                     |            |        |                                   |      |                 |                  |                      |                  |           |
| FJ2403498-005                                | 3-11             | Kjeldahl nitrogen, total [TKN]      | ----       | E318   | 0.050                             | mg/L | 0.059           | 0.054            | 0.005                | Diff <2x LOR     | ----      |
| Anions and Nutrients (QC Lot: 1774057)       |                  |                                     |            |        |                                   |      |                 |                  |                      |                  |           |
| FJ2403498-005                                | 3-11             | Phosphorus, total                   | 7723-14-0  | E372-U | 0.0020                            | mg/L | <0.0020         | <0.0020          | 0                    | Diff <2x LOR     | ----      |
| Anions and Nutrients (QC Lot: 1774058)       |                  |                                     |            |        |                                   |      |                 |                  |                      |                  |           |
| VA24D1190-006                                | Anonymous        | Ammonia, total (as N)               | 7664-41-7  | E298   | 0.0050                            | mg/L | <0.0050         | <0.0050          | 0                    | Diff <2x LOR     | ----      |
| Anions and Nutrients (QC Lot: 1774421)       |                  |                                     |            |        |                                   |      |                 |                  |                      |                  |           |
| FJ2403498-004                                | 3-10             | Kjeldahl nitrogen, total [TKN]      | ----       | E318   | 0.050                             | mg/L | 0.076           | 0.056            | 0.019                | Diff <2x LOR     | ----      |
| Anions and Nutrients (QC Lot: 1774422)       |                  |                                     |            |        |                                   |      |                 |                  |                      |                  |           |
| FJ2403498-004                                | 3-10             | Phosphorus, total                   | 7723-14-0  | E372-U | 0.0020                            | mg/L | <0.0020         | <0.0020          | 0                    | Diff <2x LOR     | ----      |
| Anions and Nutrients (QC Lot: 1774423)       |                  |                                     |            |        |                                   |      |                 |                  |                      |                  |           |
| FJ2403498-004                                | 3-10             | Ammonia, total (as N)               | 7664-41-7  | E298   | 0.0050                            | mg/L | <0.0050         | <0.0050          | 0                    | Diff <2x LOR     | ----      |
| Organic / Inorganic Carbon (QC Lot: 1772295) |                  |                                     |            |        |                                   |      |                 |                  |                      |                  |           |
| FJ2403498-001                                | 3-4              | Carbon, dissolved organic [DOC]     | ----       | E358-L | 0.50                              | mg/L | <0.50           | <0.50            | 0                    | Diff <2x LOR     | ----      |
| Organic / Inorganic Carbon (QC Lot: 1772943) |                  |                                     |            |        |                                   |      |                 |                  |                      |                  |           |
| FJ2403498-006                                | 3-13             | Carbon, dissolved organic [DOC]     | ----       | E358-L | 0.50                              | mg/L | 0.65            | 0.80             | 0.16                 | Diff <2x LOR     | ----      |
| Total Metals (QC Lot: 1772195)               |                  |                                     |            |        |                                   |      |                 |                  |                      |                  |           |
| VA24D1174-001                                | Anonymous        | Aluminum, total                     | 7429-90-5  | E420   | 0.0030                            | mg/L | 0.0076          | 0.0060           | 0.0016               | Diff <2x LOR     | ----      |
|                                              |                  | Antimony, total                     | 7440-36-0  | E420   | 0.00010                           | mg/L | 0.00285         | 0.00307          | 7.42%                | 20%              | ----      |
|                                              |                  | Arsenic, total                      | 7440-38-2  | E420   | 0.00010                           | mg/L | 0.00983         | 0.00982          | 0.0628%              | 20%              | ----      |
|                                              |                  | Barium, total                       | 7440-39-3  | E420   | 0.00010                           | mg/L | 0.0163          | 0.0161           | 1.43%                | 20%              | ----      |
|                                              |                  | Beryllium, total                    | 7440-41-7  | E420   | 0.000020                          | mg/L | <0.000020       | <0.000020        | 0                    | Diff <2x LOR     | ----      |
|                                              |                  | Bismuth, total                      | 7440-69-9  | E420   | 0.000050                          | mg/L | <0.000050       | <0.000050        | 0                    | Diff <2x LOR     | ----      |
|                                              |                  | Boron, total                        | 7440-42-8  | E420   | 0.010                             | mg/L | <0.010          | <0.010           | 0                    | Diff <2x LOR     | ----      |
|                                              |                  | Cadmium, total                      | 7440-43-9  | E420   | 0.0000050                         | mg/L | 0.00207         | 0.00211          | 2.16%                | 20%              | ----      |
|                                              |                  | Calcium, total                      | 7440-70-2  | E420   | 0.050                             | mg/L | 241             | 253              | 4.92%                | 20%              | ----      |
|                                              |                  | Cesium, total                       | 7440-46-2  | E420   | 0.000010                          | mg/L | 0.000690        | 0.000765         | 10.4%                | 20%              | ----      |
|                                              |                  | Chromium, total                     | 7440-47-3  | E420   | 0.00050                           | mg/L | <0.00050        | <0.00050         | 0                    | Diff <2x LOR     | ----      |
|                                              |                  | Cobalt, total                       | 7440-48-4  | E420   | 0.00010                           | mg/L | <0.00010        | <0.00010         | 0                    | Diff <2x LOR     | ----      |
|                                              |                  | Copper, total                       | 7440-50-8  | E420   | 0.00050                           | mg/L | 0.00287         | 0.00286          | 0.00002              | Diff <2x LOR     | ----      |
|                                              |                  | Iron, total                         | 7439-89-6  | E420   | 0.010                             | mg/L | 0.022           | 0.020            | 0.002                | Diff <2x LOR     | ----      |





| Sub-Matrix: Water                          |                  |                     |            |        | Laboratory Duplicate (DUP) Report |      |                 |                  |                      |                  |           |
|--------------------------------------------|------------------|---------------------|------------|--------|-----------------------------------|------|-----------------|------------------|----------------------|------------------|-----------|
| Laboratory sample ID                       | Client sample ID | Analyte             | CAS Number | Method | LOR                               | Unit | Original Result | Duplicate Result | RPD(%) or Difference | Duplicate Limits | Qualifier |
| Total Metals (QC Lot: 1772195) - continued |                  |                     |            |        |                                   |      |                 |                  |                      |                  |           |
| VA24D1174-001                              | Anonymous        | Lead, total         | 7439-92-1  | E420   | 0.000050                          | mg/L | 0.000521        | 0.000541         | 3.68%                | 20%              | ----      |
|                                            |                  | Lithium, total      | 7439-93-2  | E420   | 0.0010                            | mg/L | 0.0090          | 0.0093           | 0.0004               | Diff <2x LOR     | ----      |
|                                            |                  | Magnesium, total    | 7439-95-4  | E420   | 0.0050                            | mg/L | 72.4            | 72.2             | 0.266%               | 20%              | ----      |
|                                            |                  | Manganese, total    | 7439-96-5  | E420   | 0.00010                           | mg/L | 0.0352          | 0.0350           | 0.399%               | 20%              | ----      |
|                                            |                  | Molybdenum, total   | 7439-98-7  | E420   | 0.000050                          | mg/L | 0.000165        | 0.000176         | 0.000011             | Diff <2x LOR     | ----      |
|                                            |                  | Nickel, total       | 7440-02-0  | E420   | 0.00050                           | mg/L | <0.00050        | 0.00054          | 0.00004              | Diff <2x LOR     | ----      |
|                                            |                  | Phosphorus, total   | 7723-14-0  | E420   | 0.050                             | mg/L | <0.050          | <0.050           | 0                    | Diff <2x LOR     | ----      |
|                                            |                  | Potassium, total    | 7440-09-7  | E420   | 0.050                             | mg/L | 3.63            | 3.62             | 0.386%               | 20%              | ----      |
|                                            |                  | Rubidium, total     | 7440-17-7  | E420   | 0.00020                           | mg/L | 0.00608         | 0.00627          | 3.16%                | 20%              | ----      |
|                                            |                  | Selenium, total     | 7782-49-2  | E420   | 0.000050                          | mg/L | <0.000050       | <0.000050        | 0                    | Diff <2x LOR     | ----      |
|                                            |                  | Silicon, total      | 7440-21-3  | E420   | 0.10                              | mg/L | 3.87            | 3.86             | 0.456%               | 20%              | ----      |
|                                            |                  | Silver, total       | 7440-22-4  | E420   | 0.000010                          | mg/L | 0.000016        | 0.000013         | 0.000002             | Diff <2x LOR     | ----      |
|                                            |                  | Sodium, total       | 7440-23-5  | E420   | 0.050                             | mg/L | 14.1            | 14.2             | 0.531%               | 20%              | ----      |
|                                            |                  | Strontium, total    | 7440-24-6  | E420   | 0.00020                           | mg/L | 1.16            | 1.25             | 7.10%                | 20%              | ----      |
|                                            |                  | Sulfur, total       | 7704-34-9  | E420   | 0.50                              | mg/L | 280             | 276              | 1.29%                | 20%              | ----      |
|                                            |                  | Tellurium, total    | 13494-80-9 | E420   | 0.00020                           | mg/L | 0.00027         | <0.00020         | 0.00007              | Diff <2x LOR     | ----      |
|                                            |                  | Thallium, total     | 7440-28-0  | E420   | 0.000010                          | mg/L | 0.000042        | 0.000042         | 0.0000002            | Diff <2x LOR     | ----      |
|                                            |                  | Thorium, total      | 7440-29-1  | E420   | 0.00010                           | mg/L | <0.00010        | <0.00010         | 0                    | Diff <2x LOR     | ----      |
|                                            |                  | Tin, total          | 7440-31-5  | E420   | 0.00010                           | mg/L | <0.00010        | <0.00010         | 0                    | Diff <2x LOR     | ----      |
|                                            |                  | Titanium, total     | 7440-32-6  | E420   | 0.00030                           | mg/L | <0.00030        | <0.00030         | 0                    | Diff <2x LOR     | ----      |
|                                            |                  | Tungsten, total     | 7440-33-7  | E420   | 0.00010                           | mg/L | <0.00010        | <0.00010         | 0                    | Diff <2x LOR     | ----      |
|                                            |                  | Uranium, total      | 7440-61-1  | E420   | 0.000010                          | mg/L | 0.00393         | 0.00423          | 7.40%                | 20%              | ----      |
|                                            |                  | Vanadium, total     | 7440-62-2  | E420   | 0.00050                           | mg/L | <0.00050        | <0.00050         | 0                    | Diff <2x LOR     | ----      |
|                                            |                  | Zinc, total         | 7440-66-6  | E420   | 0.0030                            | mg/L | 0.384           | 0.382            | 0.406%               | 20%              | ----      |
|                                            |                  | Zirconium, total    | 7440-67-7  | E420   | 0.00020                           | mg/L | <0.00020        | <0.00020         | 0                    | Diff <2x LOR     | ----      |
| Total Metals (QC Lot: 1776684)             |                  |                     |            |        |                                   |      |                 |                  |                      |                  |           |
| FJ2403491-007                              | Anonymous        | Mercury, total      | 7439-97-6  | E508   | 0.0000050                         | mg/L | <0.0000050      | <0.0000050       | 0                    | Diff <2x LOR     | ----      |
| Total Metals (QC Lot: 1776685)             |                  |                     |            |        |                                   |      |                 |                  |                      |                  |           |
| FJ2403498-007                              | 3-7              | Mercury, total      | 7439-97-6  | E508   | 0.0000050                         | mg/L | 0.000229        | 0.000227         | 0.614%               | 20%              | ----      |
| Dissolved Metals (QC Lot: 1772205)         |                  |                     |            |        |                                   |      |                 |                  |                      |                  |           |
| YL2401855-001                              | Anonymous        | Aluminum, dissolved | 7429-90-5  | E421   | 0.0010                            | mg/L | <0.0010         | <0.0010          | 0                    | Diff <2x LOR     | ----      |
|                                            |                  | Antimony, dissolved | 7440-36-0  | E421   | 0.00010                           | mg/L | <0.00010        | <0.00010         | 0                    | Diff <2x LOR     | ----      |
|                                            |                  | Arsenic, dissolved  | 7440-38-2  | E421   | 0.00010                           | mg/L | 0.00019         | 0.00019          | 0.000002             | Diff <2x LOR     | ----      |
|                                            |                  | Barium, dissolved   | 7440-39-3  | E421   | 0.00010                           | mg/L | <0.00010        | <0.00010         | 0                    | Diff <2x LOR     | ----      |



| Sub-Matrix: <b>Water</b>                              |                  |                       |            |        | Laboratory Duplicate (DUP) Report |      |                 |                  |                      |                  |           |
|-------------------------------------------------------|------------------|-----------------------|------------|--------|-----------------------------------|------|-----------------|------------------|----------------------|------------------|-----------|
| Laboratory sample ID                                  | Client sample ID | Analyte               | CAS Number | Method | LOR                               | Unit | Original Result | Duplicate Result | RPD(%) or Difference | Duplicate Limits | Qualifier |
| <b>Dissolved Metals (QC Lot: 1772205) - continued</b> |                  |                       |            |        |                                   |      |                 |                  |                      |                  |           |
| YL2401855-001                                         | Anonymous        | Beryllium, dissolved  | 7440-41-7  | E421   | 0.000100                          | mg/L | <0.000100       | <0.000100        | 0                    | Diff <2x LOR     | ----      |
|                                                       |                  | Bismuth, dissolved    | 7440-69-9  | E421   | 0.000050                          | mg/L | <0.000050       | <0.000050        | 0                    | Diff <2x LOR     | ----      |
|                                                       |                  | Boron, dissolved      | 7440-42-8  | E421   | 0.010                             | mg/L | <0.010          | <0.010           | 0                    | Diff <2x LOR     | ----      |
|                                                       |                  | Cadmium, dissolved    | 7440-43-9  | E421   | 0.0000050                         | mg/L | <0.0000050      | <0.0000050       | 0                    | Diff <2x LOR     | ----      |
|                                                       |                  | Calcium, dissolved    | 7440-70-2  | E421   | 0.050                             | mg/L | <0.050          | <0.050           | 0                    | Diff <2x LOR     | ----      |
|                                                       |                  | Cesium, dissolved     | 7440-46-2  | E421   | 0.000010                          | mg/L | <0.000010       | <0.000010        | 0                    | Diff <2x LOR     | ----      |
|                                                       |                  | Chromium, dissolved   | 7440-47-3  | E421   | 0.00050                           | mg/L | <0.00050        | <0.00050         | 0                    | Diff <2x LOR     | ----      |
|                                                       |                  | Cobalt, dissolved     | 7440-48-4  | E421   | 0.00010                           | mg/L | <0.00010        | <0.00010         | 0                    | Diff <2x LOR     | ----      |
|                                                       |                  | Copper, dissolved     | 7440-50-8  | E421   | 0.00020                           | mg/L | <0.00020        | <0.00020         | 0                    | Diff <2x LOR     | ----      |
|                                                       |                  | Iron, dissolved       | 7439-89-6  | E421   | 0.010                             | mg/L | <0.010          | <0.010           | 0                    | Diff <2x LOR     | ----      |
|                                                       |                  | Lead, dissolved       | 7439-92-1  | E421   | 0.000050                          | mg/L | <0.000050       | <0.000050        | 0                    | Diff <2x LOR     | ----      |
|                                                       |                  | Lithium, dissolved    | 7439-93-2  | E421   | 0.0010                            | mg/L | <0.0010         | <0.0010          | 0                    | Diff <2x LOR     | ----      |
|                                                       |                  | Magnesium, dissolved  | 7439-95-4  | E421   | 0.0050                            | mg/L | <0.0050         | <0.0050          | 0                    | Diff <2x LOR     | ----      |
|                                                       |                  | Manganese, dissolved  | 7439-96-5  | E421   | 0.00010                           | mg/L | 0.00014         | 0.00016          | 0.00002              | Diff <2x LOR     | ----      |
|                                                       |                  | Molybdenum, dissolved | 7439-98-7  | E421   | 0.000050                          | mg/L | <0.000050       | <0.000050        | 0                    | Diff <2x LOR     | ----      |
|                                                       |                  | Nickel, dissolved     | 7440-02-0  | E421   | 0.00050                           | mg/L | <0.00050        | <0.00050         | 0                    | Diff <2x LOR     | ----      |
|                                                       |                  | Phosphorus, dissolved | 7723-14-0  | E421   | 0.050                             | mg/L | <0.050          | <0.050           | 0                    | Diff <2x LOR     | ----      |
|                                                       |                  | Potassium, dissolved  | 7440-09-7  | E421   | 0.050                             | mg/L | <0.050          | <0.050           | 0                    | Diff <2x LOR     | ----      |
|                                                       |                  | Rubidium, dissolved   | 7440-17-7  | E421   | 0.00020                           | mg/L | <0.00020        | <0.00020         | 0                    | Diff <2x LOR     | ----      |
|                                                       |                  | Selenium, dissolved   | 7782-49-2  | E421   | 0.000050                          | mg/L | <0.000050       | <0.000050        | 0                    | Diff <2x LOR     | ----      |
|                                                       |                  | Silicon, dissolved    | 7440-21-3  | E421   | 0.050                             | mg/L | <0.050          | <0.050           | 0                    | Diff <2x LOR     | ----      |
|                                                       |                  | Silver, dissolved     | 7440-22-4  | E421   | 0.000010                          | mg/L | <0.000010       | <0.000010        | 0                    | Diff <2x LOR     | ----      |
|                                                       |                  | Sodium, dissolved     | 7440-23-5  | E421   | 0.050                             | mg/L | <0.050          | <0.050           | 0                    | Diff <2x LOR     | ----      |
|                                                       |                  | Strontium, dissolved  | 7440-24-6  | E421   | 0.00020                           | mg/L | <0.00020        | <0.00020         | 0                    | Diff <2x LOR     | ----      |
|                                                       |                  | Sulfur, dissolved     | 7704-34-9  | E421   | 0.50                              | mg/L | <0.50           | <0.50            | 0                    | Diff <2x LOR     | ----      |
|                                                       |                  | Tellurium, dissolved  | 13494-80-9 | E421   | 0.00020                           | mg/L | <0.00020        | <0.00020         | 0                    | Diff <2x LOR     | ----      |
|                                                       |                  | Thallium, dissolved   | 7440-28-0  | E421   | 0.000010                          | mg/L | <0.000010       | <0.000010        | 0                    | Diff <2x LOR     | ----      |
|                                                       |                  | Thorium, dissolved    | 7440-29-1  | E421   | 0.00010                           | mg/L | <0.00010        | <0.00010         | 0                    | Diff <2x LOR     | ----      |
|                                                       |                  | Tin, dissolved        | 7440-31-5  | E421   | 0.00010                           | mg/L | <0.00010        | <0.00010         | 0                    | Diff <2x LOR     | ----      |
|                                                       |                  | Titanium, dissolved   | 7440-32-6  | E421   | 0.00030                           | mg/L | <0.00030        | <0.00030         | 0                    | Diff <2x LOR     | ----      |
|                                                       |                  | Tungsten, dissolved   | 7440-33-7  | E421   | 0.00010                           | mg/L | <0.00010        | <0.00010         | 0                    | Diff <2x LOR     | ----      |
|                                                       |                  | Uranium, dissolved    | 7440-61-1  | E421   | 0.000010                          | mg/L | <0.000010       | <0.000010        | 0                    | Diff <2x LOR     | ----      |
|                                                       |                  | Vanadium, dissolved   | 7440-62-2  | E421   | 0.00050                           | mg/L | <0.00050        | <0.00050         | 0                    | Diff <2x LOR     | ----      |
|                                                       |                  | Zinc, dissolved       | 7440-66-6  | E421   | 0.0010                            | mg/L | <0.0010         | <0.0010          | 0                    | Diff <2x LOR     | ----      |



| Sub-Matrix: Water                              |                  |                                |             |            | Laboratory Duplicate (DUP) Report |      |                 |                  |                      |                  |           |
|------------------------------------------------|------------------|--------------------------------|-------------|------------|-----------------------------------|------|-----------------|------------------|----------------------|------------------|-----------|
| Laboratory sample ID                           | Client sample ID | Analyte                        | CAS Number  | Method     | LOR                               | Unit | Original Result | Duplicate Result | RPD(%) or Difference | Duplicate Limits | Qualifier |
| Dissolved Metals (QC Lot: 1772205) - continued |                  |                                |             |            |                                   |      |                 |                  |                      |                  |           |
| YL2401855-001                                  | Anonymous        | Zirconium, dissolved           | 7440-67-7   | E421       | 0.00020                           | mg/L | <0.00020        | <0.00020         | 0                    | Diff <2x LOR     | ----      |
| Dissolved Metals (QC Lot: 1776691)             |                  |                                |             |            |                                   |      |                 |                  |                      |                  |           |
| FJ2403491-006                                  | Anonymous        | Mercury, dissolved             | 7439-97-6   | E509       | 0.0000050                         | mg/L | <0.0000050      | <0.0000050       | 0                    | Diff <2x LOR     | ----      |
| Volatile Organic Compounds (QC Lot: 1778667)   |                  |                                |             |            |                                   |      |                 |                  |                      |                  |           |
| FJ2403498-007                                  | 3-7              | Benzene                        | 71-43-2     | E611A      | 0.50                              | µg/L | <0.50           | <0.50            | 0                    | Diff <2x LOR     | ----      |
|                                                |                  | Ethylbenzene                   | 100-41-4    | E611A      | 0.50                              | µg/L | <0.50           | <0.50            | 0                    | Diff <2x LOR     | ----      |
|                                                |                  | Methyl-tert-butyl ether [MTBE] | 1634-04-4   | E611A      | 0.50                              | µg/L | <0.50           | <0.50            | 0                    | Diff <2x LOR     | ----      |
|                                                |                  | Styrene                        | 100-42-5    | E611A      | 0.50                              | µg/L | <0.50           | <0.50            | 0                    | Diff <2x LOR     | ----      |
|                                                |                  | Toluene                        | 108-88-3    | E611A      | 0.50                              | µg/L | <0.50           | <0.50            | 0                    | Diff <2x LOR     | ----      |
|                                                |                  | Xylene, m+p-                   | 179601-23-1 | E611A      | 0.40                              | µg/L | <0.40           | <0.40            | 0                    | Diff <2x LOR     | ----      |
|                                                |                  | Xylene, o-                     | 95-47-6     | E611A      | 0.30                              | µg/L | <0.30           | <0.30            | 0                    | Diff <2x LOR     | ----      |
| Hydrocarbons (QC Lot: 1778666)                 |                  |                                |             |            |                                   |      |                 |                  |                      |                  |           |
| FJ2403498-007                                  | 3-7              | F1 (C6-C10)                    | ----        | E581.VH+F1 | 100                               | µg/L | <100            | <100             | 0.0%                 | 30%              | ----      |



Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: Water

| Analyte                                | CAS Number | Method     | LOR   | Unit  | Result  | Qualifier |
|----------------------------------------|------------|------------|-------|-------|---------|-----------|
| Physical Tests (QCLot: 1772409)        |            |            |       |       |         |           |
| Alkalinity, bicarbonate (as CaCO3)     | ----       | E290       | 1     | mg/L  | <1.0    | ----      |
| Alkalinity, carbonate (as CaCO3)       | ----       | E290       | 1     | mg/L  | <1.0    | ----      |
| Alkalinity, hydroxide (as CaCO3)       | ----       | E290       | 1     | mg/L  | <1.0    | ----      |
| Alkalinity, phenolphthalein (as CaCO3) | ----       | E290       | 1     | mg/L  | <1.0    | ----      |
| Alkalinity, total (as CaCO3)           | ----       | E290       | 1     | mg/L  | <1.0    | ----      |
| Physical Tests (QCLot: 1772410)        |            |            |       |       |         |           |
| Conductivity                           | ----       | E100       | 1     | µS/cm | <1.0    | ----      |
| Physical Tests (QCLot: 1774380)        |            |            |       |       |         |           |
| Solids, total dissolved [TDS]          | ----       | E162       | 10    | mg/L  | <10     | ----      |
| Physical Tests (QCLot: 1774381)        |            |            |       |       |         |           |
| Solids, total suspended [TSS]          | ----       | E160       | 3     | mg/L  | <3.0    | ----      |
| Physical Tests (QCLot: 1776079)        |            |            |       |       |         |           |
| Solids, total suspended [TSS]          | ----       | E160       | 3     | mg/L  | <3.0    | ----      |
| Physical Tests (QCLot: 1776084)        |            |            |       |       |         |           |
| Solids, total dissolved [TDS]          | ----       | E162       | 10    | mg/L  | <10     | ----      |
| Anions and Nutrients (QCLot: 1772411)  |            |            |       |       |         |           |
| Fluoride                               | 16984-48-8 | E235.F     | 0.02  | mg/L  | <0.020  | ----      |
| Anions and Nutrients (QCLot: 1772412)  |            |            |       |       |         |           |
| Chloride                               | 16887-00-6 | E235.Cl    | 0.5   | mg/L  | <0.50   | ----      |
| Anions and Nutrients (QCLot: 1772413)  |            |            |       |       |         |           |
| Bromide                                | 24959-67-9 | E235.Br-L  | 0.05  | mg/L  | <0.050  | ----      |
| Anions and Nutrients (QCLot: 1772414)  |            |            |       |       |         |           |
| Nitrate (as N)                         | 14797-55-8 | E235.NO3-L | 0.005 | mg/L  | <0.0050 | ----      |
| Anions and Nutrients (QCLot: 1772415)  |            |            |       |       |         |           |
| Nitrite (as N)                         | 14797-65-0 | E235.NO2-L | 0.001 | mg/L  | <0.0010 | ----      |
| Anions and Nutrients (QCLot: 1772416)  |            |            |       |       |         |           |
| Sulfate (as SO4)                       | 14808-79-8 | E235.SO4   | 0.3   | mg/L  | <0.30   | ----      |
| Anions and Nutrients (QCLot: 1772417)  |            |            |       |       |         |           |
| Phosphate, ortho-, dissolved (as P)    | 14265-44-2 | E378-U     | 0.001 | mg/L  | <0.0010 | ----      |
| Anions and Nutrients (QCLot: 1772946)  |            |            |       |       |         |           |
| Phosphorus, total dissolved            | 7723-14-0  | E375-T     | 0.002 | mg/L  | <0.0020 | ----      |
| Anions and Nutrients (QCLot: 1774056)  |            |            |       |       |         |           |



Sub-Matrix: Water

| Analyte                                           | CAS Number | Method | LOR      | Unit | Result     | Qualifier |
|---------------------------------------------------|------------|--------|----------|------|------------|-----------|
| Anions and Nutrients (QCLot: 1774056) - continued |            |        |          |      |            |           |
| Kjeldahl nitrogen, total [TKN]                    | ----       | E318   | 0.05     | mg/L | <0.050     | ----      |
| Anions and Nutrients (QCLot: 1774057)             |            |        |          |      |            |           |
| Phosphorus, total                                 | 7723-14-0  | E372-U | 0.002    | mg/L | <0.0020    | ----      |
| Anions and Nutrients (QCLot: 1774058)             |            |        |          |      |            |           |
| Ammonia, total (as N)                             | 7664-41-7  | E298   | 0.005    | mg/L | <0.0050    | ----      |
| Anions and Nutrients (QCLot: 1774421)             |            |        |          |      |            |           |
| Kjeldahl nitrogen, total [TKN]                    | ----       | E318   | 0.05     | mg/L | <0.050     | ----      |
| Anions and Nutrients (QCLot: 1774422)             |            |        |          |      |            |           |
| Phosphorus, total                                 | 7723-14-0  | E372-U | 0.002    | mg/L | <0.0020    | ----      |
| Anions and Nutrients (QCLot: 1774423)             |            |        |          |      |            |           |
| Ammonia, total (as N)                             | 7664-41-7  | E298   | 0.005    | mg/L | <0.0050    | ----      |
| Organic / Inorganic Carbon (QCLot: 1772295)       |            |        |          |      |            |           |
| Carbon, dissolved organic [DOC]                   | ----       | E358-L | 0.5      | mg/L | <0.50      | ----      |
| Organic / Inorganic Carbon (QCLot: 1772943)       |            |        |          |      |            |           |
| Carbon, dissolved organic [DOC]                   | ----       | E358-L | 0.5      | mg/L | <0.50      | ----      |
| Total Metals (QCLot: 1772195)                     |            |        |          |      |            |           |
| Aluminum, total                                   | 7429-90-5  | E420   | 0.003    | mg/L | <0.0030    | ----      |
| Antimony, total                                   | 7440-36-0  | E420   | 0.0001   | mg/L | <0.00010   | ----      |
| Arsenic, total                                    | 7440-38-2  | E420   | 0.0001   | mg/L | <0.00010   | ----      |
| Barium, total                                     | 7440-39-3  | E420   | 0.0001   | mg/L | <0.00010   | ----      |
| Beryllium, total                                  | 7440-41-7  | E420   | 0.00002  | mg/L | <0.000020  | ----      |
| Bismuth, total                                    | 7440-69-9  | E420   | 0.00005  | mg/L | <0.000050  | ----      |
| Boron, total                                      | 7440-42-8  | E420   | 0.01     | mg/L | <0.010     | ----      |
| Cadmium, total                                    | 7440-43-9  | E420   | 0.000005 | mg/L | <0.0000050 | ----      |
| Calcium, total                                    | 7440-70-2  | E420   | 0.05     | mg/L | <0.050     | ----      |
| Cesium, total                                     | 7440-46-2  | E420   | 0.00001  | mg/L | <0.000010  | ----      |
| Chromium, total                                   | 7440-47-3  | E420   | 0.0005   | mg/L | <0.00050   | ----      |
| Cobalt, total                                     | 7440-48-4  | E420   | 0.0001   | mg/L | <0.00010   | ----      |
| Copper, total                                     | 7440-50-8  | E420   | 0.0005   | mg/L | <0.00050   | ----      |
| Iron, total                                       | 7439-89-6  | E420   | 0.01     | mg/L | <0.010     | ----      |
| Lead, total                                       | 7439-92-1  | E420   | 0.00005  | mg/L | <0.000050  | ----      |
| Lithium, total                                    | 7439-93-2  | E420   | 0.001    | mg/L | <0.0010    | ----      |
| Magnesium, total                                  | 7439-95-4  | E420   | 0.005    | mg/L | <0.0050    | ----      |
| Manganese, total                                  | 7439-96-5  | E420   | 0.0001   | mg/L | <0.00010   | ----      |
| Molybdenum, total                                 | 7439-98-7  | E420   | 0.00005  | mg/L | <0.000050  | ----      |



Sub-Matrix: **Water**

| Analyte                                          | CAS Number | Method | LOR      | Unit | Result     | Qualifier |
|--------------------------------------------------|------------|--------|----------|------|------------|-----------|
| <b>Total Metals (QCLot: 1772195) - continued</b> |            |        |          |      |            |           |
| Nickel, total                                    | 7440-02-0  | E420   | 0.0005   | mg/L | <0.00050   | ----      |
| Phosphorus, total                                | 7723-14-0  | E420   | 0.05     | mg/L | <0.050     | ----      |
| Potassium, total                                 | 7440-09-7  | E420   | 0.05     | mg/L | <0.050     | ----      |
| Rubidium, total                                  | 7440-17-7  | E420   | 0.0002   | mg/L | <0.00020   | ----      |
| Selenium, total                                  | 7782-49-2  | E420   | 0.00005  | mg/L | <0.000050  | ----      |
| Silicon, total                                   | 7440-21-3  | E420   | 0.1      | mg/L | <0.10      | ----      |
| Silver, total                                    | 7440-22-4  | E420   | 0.00001  | mg/L | <0.000010  | ----      |
| Sodium, total                                    | 7440-23-5  | E420   | 0.05     | mg/L | <0.050     | ----      |
| Strontium, total                                 | 7440-24-6  | E420   | 0.0002   | mg/L | <0.00020   | ----      |
| Sulfur, total                                    | 7704-34-9  | E420   | 0.5      | mg/L | <0.50      | ----      |
| Tellurium, total                                 | 13494-80-9 | E420   | 0.0002   | mg/L | <0.00020   | ----      |
| Thallium, total                                  | 7440-28-0  | E420   | 0.00001  | mg/L | <0.000010  | ----      |
| Thorium, total                                   | 7440-29-1  | E420   | 0.0001   | mg/L | <0.00010   | ----      |
| Tin, total                                       | 7440-31-5  | E420   | 0.0001   | mg/L | <0.00010   | ----      |
| Titanium, total                                  | 7440-32-6  | E420   | 0.0003   | mg/L | <0.00030   | ----      |
| Tungsten, total                                  | 7440-33-7  | E420   | 0.0001   | mg/L | <0.00010   | ----      |
| Uranium, total                                   | 7440-61-1  | E420   | 0.00001  | mg/L | <0.000010  | ----      |
| Vanadium, total                                  | 7440-62-2  | E420   | 0.0005   | mg/L | <0.00050   | ----      |
| Zinc, total                                      | 7440-66-6  | E420   | 0.003    | mg/L | <0.0030    | ----      |
| Zirconium, total                                 | 7440-67-7  | E420   | 0.0002   | mg/L | <0.00020   | ----      |
| <b>Total Metals (QCLot: 1776684)</b>             |            |        |          |      |            |           |
| Mercury, total                                   | 7439-97-6  | E508   | 0.000005 | mg/L | <0.0000050 | ----      |
| <b>Total Metals (QCLot: 1776685)</b>             |            |        |          |      |            |           |
| Mercury, total                                   | 7439-97-6  | E508   | 0.000005 | mg/L | <0.0000050 | ----      |
| <b>Dissolved Metals (QCLot: 1772205)</b>         |            |        |          |      |            |           |
| Aluminum, dissolved                              | 7429-90-5  | E421   | 0.001    | mg/L | <0.0010    | ----      |
| Antimony, dissolved                              | 7440-36-0  | E421   | 0.0001   | mg/L | <0.00010   | ----      |
| Arsenic, dissolved                               | 7440-38-2  | E421   | 0.0001   | mg/L | <0.00010   | ----      |
| Barium, dissolved                                | 7440-39-3  | E421   | 0.0001   | mg/L | <0.00010   | ----      |
| Beryllium, dissolved                             | 7440-41-7  | E421   | 0.00002  | mg/L | <0.000020  | ----      |
| Bismuth, dissolved                               | 7440-69-9  | E421   | 0.00005  | mg/L | <0.000050  | ----      |
| Boron, dissolved                                 | 7440-42-8  | E421   | 0.01     | mg/L | <0.010     | ----      |
| Cadmium, dissolved                               | 7440-43-9  | E421   | 0.000005 | mg/L | <0.0000050 | ----      |
| Calcium, dissolved                               | 7440-70-2  | E421   | 0.05     | mg/L | <0.050     | ----      |
| Cesium, dissolved                                | 7440-46-2  | E421   | 0.00001  | mg/L | <0.000010  | ----      |



Sub-Matrix: **Water**

| Analyte                                              | CAS Number | Method | LOR      | Unit | Result     | Qualifier |
|------------------------------------------------------|------------|--------|----------|------|------------|-----------|
| <b>Dissolved Metals (QCLot: 1772205) - continued</b> |            |        |          |      |            |           |
| Chromium, dissolved                                  | 7440-47-3  | E421   | 0.0005   | mg/L | <0.00050   | ----      |
| Cobalt, dissolved                                    | 7440-48-4  | E421   | 0.0001   | mg/L | <0.00010   | ----      |
| Copper, dissolved                                    | 7440-50-8  | E421   | 0.0002   | mg/L | <0.00020   | ----      |
| Iron, dissolved                                      | 7439-89-6  | E421   | 0.01     | mg/L | <0.010     | ----      |
| Lead, dissolved                                      | 7439-92-1  | E421   | 0.00005  | mg/L | <0.000050  | ----      |
| Lithium, dissolved                                   | 7439-93-2  | E421   | 0.001    | mg/L | <0.0010    | ----      |
| Magnesium, dissolved                                 | 7439-95-4  | E421   | 0.005    | mg/L | <0.0050    | ----      |
| Manganese, dissolved                                 | 7439-96-5  | E421   | 0.0001   | mg/L | <0.00010   | ----      |
| Molybdenum, dissolved                                | 7439-98-7  | E421   | 0.00005  | mg/L | <0.000050  | ----      |
| Nickel, dissolved                                    | 7440-02-0  | E421   | 0.0005   | mg/L | <0.00050   | ----      |
| Phosphorus, dissolved                                | 7723-14-0  | E421   | 0.05     | mg/L | <0.050     | ----      |
| Potassium, dissolved                                 | 7440-09-7  | E421   | 0.05     | mg/L | <0.050     | ----      |
| Rubidium, dissolved                                  | 7440-17-7  | E421   | 0.0002   | mg/L | <0.00020   | ----      |
| Selenium, dissolved                                  | 7782-49-2  | E421   | 0.00005  | mg/L | <0.000050  | ----      |
| Silicon, dissolved                                   | 7440-21-3  | E421   | 0.05     | mg/L | <0.050     | ----      |
| Silver, dissolved                                    | 7440-22-4  | E421   | 0.00001  | mg/L | <0.000010  | ----      |
| Sodium, dissolved                                    | 7440-23-5  | E421   | 0.05     | mg/L | <0.050     | ----      |
| Strontium, dissolved                                 | 7440-24-6  | E421   | 0.0002   | mg/L | <0.00020   | ----      |
| Sulfur, dissolved                                    | 7704-34-9  | E421   | 0.5      | mg/L | <0.50      | ----      |
| Tellurium, dissolved                                 | 13494-80-9 | E421   | 0.0002   | mg/L | <0.00020   | ----      |
| Thallium, dissolved                                  | 7440-28-0  | E421   | 0.00001  | mg/L | <0.000010  | ----      |
| Thorium, dissolved                                   | 7440-29-1  | E421   | 0.0001   | mg/L | <0.00010   | ----      |
| Tin, dissolved                                       | 7440-31-5  | E421   | 0.0001   | mg/L | <0.00010   | ----      |
| Titanium, dissolved                                  | 7440-32-6  | E421   | 0.0003   | mg/L | <0.00030   | ----      |
| Tungsten, dissolved                                  | 7440-33-7  | E421   | 0.0001   | mg/L | <0.00010   | ----      |
| Uranium, dissolved                                   | 7440-61-1  | E421   | 0.00001  | mg/L | <0.000010  | ----      |
| Vanadium, dissolved                                  | 7440-62-2  | E421   | 0.0005   | mg/L | <0.00050   | ----      |
| Zinc, dissolved                                      | 7440-66-6  | E421   | 0.001    | mg/L | <0.0010    | ----      |
| Zirconium, dissolved                                 | 7440-67-7  | E421   | 0.0002   | mg/L | <0.00020   | ----      |
| <b>Dissolved Metals (QCLot: 1776691)</b>             |            |        |          |      |            |           |
| Mercury, dissolved                                   | 7439-97-6  | E509   | 0.000005 | mg/L | <0.0000050 | ----      |
| <b>Volatile Organic Compounds (QCLot: 1778667)</b>   |            |        |          |      |            |           |
| Benzene                                              | 71-43-2    | E611A  | 0.5      | µg/L | <0.50      | ----      |
| Ethylbenzene                                         | 100-41-4   | E611A  | 0.5      | µg/L | <0.50      | ----      |
| Methyl-tert-butyl ether [MTBE]                       | 1634-04-4  | E611A  | 0.5      | µg/L | <0.50      | ----      |



Sub-Matrix: Water

| Analyte                                                 | CAS Number  | Method     | LOR | Unit | Result | Qualifier |
|---------------------------------------------------------|-------------|------------|-----|------|--------|-----------|
| Volatile Organic Compounds (QCLot: 1778667) - continued |             |            |     |      |        |           |
| Styrene                                                 | 100-42-5    | E611A      | 0.5 | µg/L | <0.50  | ----      |
| Toluene                                                 | 108-88-3    | E611A      | 0.5 | µg/L | <0.50  | ----      |
| Xylene, m+p-                                            | 179601-23-1 | E611A      | 0.4 | µg/L | <0.40  | ----      |
| Xylene, o-                                              | 95-47-6     | E611A      | 0.3 | µg/L | <0.30  | ----      |
| Hydrocarbons (QCLot: 1778666)                           |             |            |     |      |        |           |
| F1 (C6-C10)                                             | ----        | E581.VH+F1 | 100 | µg/L | <100   | ----      |





Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: Water

|                                        |            |            |       |          | Laboratory Control Sample (LCS) Report |              |                     |      |           |
|----------------------------------------|------------|------------|-------|----------|----------------------------------------|--------------|---------------------|------|-----------|
|                                        |            |            |       |          | Spike                                  | Recovery (%) | Recovery Limits (%) |      |           |
| Analyte                                | CAS Number | Method     | LOR   | Unit     | Target Concentration                   | LCS          | Low                 | High | Qualifier |
| Physical Tests (QCLot: 1772408)        |            |            |       |          |                                        |              |                     |      |           |
| pH                                     | ----       | E108       | ----  | pH units | 7 pH units                             | 100          | 98.0                | 102  | ----      |
| Physical Tests (QCLot: 1772409)        |            |            |       |          |                                        |              |                     |      |           |
| Alkalinity, phenolphthalein (as CaCO3) | ----       | E290       | 1     | mg/L     | 229 mg/L                               | 108          | 75.0                | 125  | ----      |
| Alkalinity, total (as CaCO3)           | ----       | E290       | 1     | mg/L     | 500 mg/L                               | 104          | 85.0                | 115  | ----      |
| Physical Tests (QCLot: 1772410)        |            |            |       |          |                                        |              |                     |      |           |
| Conductivity                           | ----       | E100       | 1     | µS/cm    | 147 µS/cm                              | 100          | 90.0                | 110  | ----      |
| Physical Tests (QCLot: 1774380)        |            |            |       |          |                                        |              |                     |      |           |
| Solids, total dissolved [TDS]          | ----       | E162       | 10    | mg/L     | 1000 mg/L                              | 101          | 85.0                | 115  | ----      |
| Physical Tests (QCLot: 1774381)        |            |            |       |          |                                        |              |                     |      |           |
| Solids, total suspended [TSS]          | ----       | E160       | 3     | mg/L     | 150 mg/L                               | 90.3         | 85.0                | 115  | ----      |
| Physical Tests (QCLot: 1776079)        |            |            |       |          |                                        |              |                     |      |           |
| Solids, total suspended [TSS]          | ----       | E160       | 3     | mg/L     | 150 mg/L                               | 101          | 85.0                | 115  | ----      |
| Physical Tests (QCLot: 1776084)        |            |            |       |          |                                        |              |                     |      |           |
| Solids, total dissolved [TDS]          | ----       | E162       | 10    | mg/L     | 1000 mg/L                              | 107          | 85.0                | 115  | ----      |
| Anions and Nutrients (QCLot: 1772411)  |            |            |       |          |                                        |              |                     |      |           |
| Fluoride                               | 16984-48-8 | E235.F     | 0.02  | mg/L     | 1 mg/L                                 | 96.7         | 90.0                | 110  | ----      |
| Anions and Nutrients (QCLot: 1772412)  |            |            |       |          |                                        |              |                     |      |           |
| Chloride                               | 16887-00-6 | E235.Cl    | 0.5   | mg/L     | 100 mg/L                               | 99.5         | 90.0                | 110  | ----      |
| Anions and Nutrients (QCLot: 1772413)  |            |            |       |          |                                        |              |                     |      |           |
| Bromide                                | 24959-67-9 | E235.Br-L  | 0.05  | mg/L     | 0.5 mg/L                               | 105          | 85.0                | 115  | ----      |
| Anions and Nutrients (QCLot: 1772414)  |            |            |       |          |                                        |              |                     |      |           |
| Nitrate (as N)                         | 14797-55-8 | E235.NO3-L | 0.005 | mg/L     | 2.5 mg/L                               | 99.9         | 90.0                | 110  | ----      |
| Anions and Nutrients (QCLot: 1772415)  |            |            |       |          |                                        |              |                     |      |           |
| Nitrite (as N)                         | 14797-65-0 | E235.NO2-L | 0.001 | mg/L     | 0.5 mg/L                               | 98.6         | 90.0                | 110  | ----      |
| Anions and Nutrients (QCLot: 1772416)  |            |            |       |          |                                        |              |                     |      |           |
| Sulfate (as SO4)                       | 14808-79-8 | E235.SO4   | 0.3   | mg/L     | 100 mg/L                               | 101          | 90.0                | 110  | ----      |
| Anions and Nutrients (QCLot: 1772417)  |            |            |       |          |                                        |              |                     |      |           |
| Phosphate, ortho-, dissolved (as P)    | 14265-44-2 | E378-U     | 0.001 | mg/L     | 0.03 mg/L                              | 99.6         | 80.0                | 120  | ----      |
| Anions and Nutrients (QCLot: 1772946)  |            |            |       |          |                                        |              |                     |      |           |
| Phosphorus, total dissolved            | 7723-14-0  | E375-T     | 0.002 | mg/L     | 0.05 mg/L                              | 88.9         | 80.0                | 120  | ----      |
| Anions and Nutrients (QCLot: 1774056)  |            |            |       |          |                                        |              |                     |      |           |



| Sub-Matrix: Water                                 |            |        |          |      | Laboratory Control Sample (LCS) Report |              |                     |      |           |
|---------------------------------------------------|------------|--------|----------|------|----------------------------------------|--------------|---------------------|------|-----------|
|                                                   |            |        |          |      | Spike                                  | Recovery (%) | Recovery Limits (%) |      |           |
| Analyte                                           | CAS Number | Method | LOR      | Unit | Target Concentration                   | LCS          | Low                 | High | Qualifier |
| Anions and Nutrients (QCLot: 1774056) - continued |            |        |          |      |                                        |              |                     |      |           |
| Kjeldahl nitrogen, total [TKN]                    | ----       | E318   | 0.05     | mg/L | 4 mg/L                                 | 98.7         | 75.0                | 125  | ----      |
| Anions and Nutrients (QCLot: 1774057)             |            |        |          |      |                                        |              |                     |      |           |
| Phosphorus, total                                 | 7723-14-0  | E372-U | 0.002    | mg/L | 0.05 mg/L                              | 94.7         | 80.0                | 120  | ----      |
| Anions and Nutrients (QCLot: 1774058)             |            |        |          |      |                                        |              |                     |      |           |
| Ammonia, total (as N)                             | 7664-41-7  | E298   | 0.005    | mg/L | 0.2 mg/L                               | 87.9         | 85.0                | 115  | ----      |
| Anions and Nutrients (QCLot: 1774421)             |            |        |          |      |                                        |              |                     |      |           |
| Kjeldahl nitrogen, total [TKN]                    | ----       | E318   | 0.05     | mg/L | 4 mg/L                                 | 101          | 75.0                | 125  | ----      |
| Anions and Nutrients (QCLot: 1774422)             |            |        |          |      |                                        |              |                     |      |           |
| Phosphorus, total                                 | 7723-14-0  | E372-U | 0.002    | mg/L | 0.05 mg/L                              | 99.1         | 80.0                | 120  | ----      |
| Anions and Nutrients (QCLot: 1774423)             |            |        |          |      |                                        |              |                     |      |           |
| Ammonia, total (as N)                             | 7664-41-7  | E298   | 0.005    | mg/L | 0.2 mg/L                               | 97.3         | 85.0                | 115  | ----      |
| Organic / Inorganic Carbon (QCLot: 1772295)       |            |        |          |      |                                        |              |                     |      |           |
| Carbon, dissolved organic [DOC]                   | ----       | E358-L | 0.5      | mg/L | 8.57 mg/L                              | 95.6         | 80.0                | 120  | ----      |
| Organic / Inorganic Carbon (QCLot: 1772943)       |            |        |          |      |                                        |              |                     |      |           |
| Carbon, dissolved organic [DOC]                   | ----       | E358-L | 0.5      | mg/L | 8.57 mg/L                              | 96.0         | 80.0                | 120  | ----      |
| Total Metals (QCLot: 1772195)                     |            |        |          |      |                                        |              |                     |      |           |
| Aluminum, total                                   | 7429-90-5  | E420   | 0.003    | mg/L | 2 mg/L                                 | 106          | 80.0                | 120  | ----      |
| Antimony, total                                   | 7440-36-0  | E420   | 0.0001   | mg/L | 1 mg/L                                 | 103          | 80.0                | 120  | ----      |
| Arsenic, total                                    | 7440-38-2  | E420   | 0.0001   | mg/L | 1 mg/L                                 | 107          | 80.0                | 120  | ----      |
| Barium, total                                     | 7440-39-3  | E420   | 0.0001   | mg/L | 0.25 mg/L                              | 105          | 80.0                | 120  | ----      |
| Beryllium, total                                  | 7440-41-7  | E420   | 0.00002  | mg/L | 0.1 mg/L                               | 99.7         | 80.0                | 120  | ----      |
| Bismuth, total                                    | 7440-69-9  | E420   | 0.00005  | mg/L | 1 mg/L                                 | 100          | 80.0                | 120  | ----      |
| Boron, total                                      | 7440-42-8  | E420   | 0.01     | mg/L | 1 mg/L                                 | 96.1         | 80.0                | 120  | ----      |
| Cadmium, total                                    | 7440-43-9  | E420   | 0.000005 | mg/L | 0.1 mg/L                               | 98.6         | 80.0                | 120  | ----      |
| Calcium, total                                    | 7440-70-2  | E420   | 0.05     | mg/L | 50 mg/L                                | 99.0         | 80.0                | 120  | ----      |
| Cesium, total                                     | 7440-46-2  | E420   | 0.00001  | mg/L | 0.05 mg/L                              | 101          | 80.0                | 120  | ----      |
| Chromium, total                                   | 7440-47-3  | E420   | 0.0005   | mg/L | 0.25 mg/L                              | 103          | 80.0                | 120  | ----      |
| Cobalt, total                                     | 7440-48-4  | E420   | 0.0001   | mg/L | 0.25 mg/L                              | 103          | 80.0                | 120  | ----      |
| Copper, total                                     | 7440-50-8  | E420   | 0.0005   | mg/L | 0.25 mg/L                              | 101          | 80.0                | 120  | ----      |
| Iron, total                                       | 7439-89-6  | E420   | 0.01     | mg/L | 1 mg/L                                 | 101          | 80.0                | 120  | ----      |
| Lead, total                                       | 7439-92-1  | E420   | 0.00005  | mg/L | 0.5 mg/L                               | 99.7         | 80.0                | 120  | ----      |
| Lithium, total                                    | 7439-93-2  | E420   | 0.001    | mg/L | 0.25 mg/L                              | 96.5         | 80.0                | 120  | ----      |
| Magnesium, total                                  | 7439-95-4  | E420   | 0.005    | mg/L | 50 mg/L                                | 103          | 80.0                | 120  | ----      |
| Manganese, total                                  | 7439-96-5  | E420   | 0.0001   | mg/L | 0.25 mg/L                              | 106          | 80.0                | 120  | ----      |



| Sub-Matrix: Water                         |            |        |          |      | Laboratory Control Sample (LCS) Report |              |                     |      |           |
|-------------------------------------------|------------|--------|----------|------|----------------------------------------|--------------|---------------------|------|-----------|
|                                           |            |        |          |      | Spike                                  | Recovery (%) | Recovery Limits (%) |      | Qualifier |
|                                           |            |        |          |      | Target Concentration                   | LCS          | Low                 | High |           |
| Analyte                                   | CAS Number | Method | LOR      | Unit | Target Concentration                   | LCS          | Low                 | High | Qualifier |
| Total Metals (QCLot: 1772195) - continued |            |        |          |      |                                        |              |                     |      |           |
| Molybdenum, total                         | 7439-98-7  | E420   | 0.00005  | mg/L | 0.25 mg/L                              | 102          | 80.0                | 120  | ----      |
| Nickel, total                             | 7440-02-0  | E420   | 0.0005   | mg/L | 0.5 mg/L                               | 101          | 80.0                | 120  | ----      |
| Phosphorus, total                         | 7723-14-0  | E420   | 0.05     | mg/L | 10 mg/L                                | 113          | 80.0                | 120  | ----      |
| Potassium, total                          | 7440-09-7  | E420   | 0.05     | mg/L | 50 mg/L                                | 103          | 80.0                | 120  | ----      |
| Rubidium, total                           | 7440-17-7  | E420   | 0.0002   | mg/L | 0.1 mg/L                               | 109          | 80.0                | 120  | ----      |
| Selenium, total                           | 7782-49-2  | E420   | 0.00005  | mg/L | 1 mg/L                                 | 99.1         | 80.0                | 120  | ----      |
| Silicon, total                            | 7440-21-3  | E420   | 0.1      | mg/L | 10 mg/L                                | 110          | 80.0                | 120  | ----      |
| Silver, total                             | 7440-22-4  | E420   | 0.00001  | mg/L | 0.1 mg/L                               | 95.6         | 80.0                | 120  | ----      |
| Sodium, total                             | 7440-23-5  | E420   | 0.05     | mg/L | 50 mg/L                                | 102          | 80.0                | 120  | ----      |
| Strontium, total                          | 7440-24-6  | E420   | 0.0002   | mg/L | 0.25 mg/L                              | 102          | 80.0                | 120  | ----      |
| Sulfur, total                             | 7704-34-9  | E420   | 0.5      | mg/L | 50 mg/L                                | 89.0         | 80.0                | 120  | ----      |
| Tellurium, total                          | 13494-80-9 | E420   | 0.0002   | mg/L | 0.1 mg/L                               | 108          | 80.0                | 120  | ----      |
| Thallium, total                           | 7440-28-0  | E420   | 0.00001  | mg/L | 1 mg/L                                 | 99.6         | 80.0                | 120  | ----      |
| Thorium, total                            | 7440-29-1  | E420   | 0.0001   | mg/L | 0.1 mg/L                               | 100          | 80.0                | 120  | ----      |
| Tin, total                                | 7440-31-5  | E420   | 0.0001   | mg/L | 0.5 mg/L                               | 99.7         | 80.0                | 120  | ----      |
| Titanium, total                           | 7440-32-6  | E420   | 0.0003   | mg/L | 0.25 mg/L                              | 102          | 80.0                | 120  | ----      |
| Tungsten, total                           | 7440-33-7  | E420   | 0.0001   | mg/L | 0.1 mg/L                               | 99.3         | 80.0                | 120  | ----      |
| Uranium, total                            | 7440-61-1  | E420   | 0.00001  | mg/L | 0.005 mg/L                             | 100          | 80.0                | 120  | ----      |
| Vanadium, total                           | 7440-62-2  | E420   | 0.0005   | mg/L | 0.5 mg/L                               | 103          | 80.0                | 120  | ----      |
| Zinc, total                               | 7440-66-6  | E420   | 0.003    | mg/L | 0.5 mg/L                               | 104          | 80.0                | 120  | ----      |
| Zirconium, total                          | 7440-67-7  | E420   | 0.0002   | mg/L | 0.1 mg/L                               | 102          | 80.0                | 120  | ----      |
| Total Metals (QCLot: 1776684)             |            |        |          |      |                                        |              |                     |      |           |
| Mercury, total                            | 7439-97-6  | E508   | 0.000005 | mg/L | 0 mg/L                                 | 95.8         | 80.0                | 120  | ----      |
| Total Metals (QCLot: 1776685)             |            |        |          |      |                                        |              |                     |      |           |
| Mercury, total                            | 7439-97-6  | E508   | 0.000005 | mg/L | 0 mg/L                                 | 98.3         | 80.0                | 120  | ----      |
| Dissolved Metals (QCLot: 1772205)         |            |        |          |      |                                        |              |                     |      |           |
| Aluminum, dissolved                       | 7429-90-5  | E421   | 0.001    | mg/L | 2 mg/L                                 | 102          | 80.0                | 120  | ----      |
| Antimony, dissolved                       | 7440-36-0  | E421   | 0.0001   | mg/L | 1 mg/L                                 | 94.3         | 80.0                | 120  | ----      |
| Arsenic, dissolved                        | 7440-38-2  | E421   | 0.0001   | mg/L | 1 mg/L                                 | 99.5         | 80.0                | 120  | ----      |
| Barium, dissolved                         | 7440-39-3  | E421   | 0.0001   | mg/L | 0.25 mg/L                              | 95.0         | 80.0                | 120  | ----      |
| Beryllium, dissolved                      | 7440-41-7  | E421   | 0.00002  | mg/L | 0.1 mg/L                               | 94.4         | 80.0                | 120  | ----      |
| Bismuth, dissolved                        | 7440-69-9  | E421   | 0.00005  | mg/L | 1 mg/L                                 | 102          | 80.0                | 120  | ----      |
| Boron, dissolved                          | 7440-42-8  | E421   | 0.01     | mg/L | 1 mg/L                                 | 92.1         | 80.0                | 120  | ----      |
| Cadmium, dissolved                        | 7440-43-9  | E421   | 0.000005 | mg/L | 0.1 mg/L                               | 98.4         | 80.0                | 120  | ----      |
| Calcium, dissolved                        | 7440-70-2  | E421   | 0.05     | mg/L | 50 mg/L                                | 97.9         | 80.0                | 120  | ----      |



| Sub-Matrix: Water                             |            |        |          |      | Laboratory Control Sample (LCS) Report |              |                     |      |           |
|-----------------------------------------------|------------|--------|----------|------|----------------------------------------|--------------|---------------------|------|-----------|
|                                               |            |        |          |      | Spike                                  | Recovery (%) | Recovery Limits (%) |      | Qualifier |
|                                               |            |        |          |      | Target Concentration                   | LCS          | Low                 | High |           |
| Analyte                                       | CAS Number | Method | LOR      | Unit | Target Concentration                   | LCS          | Low                 | High | Qualifier |
| Dissolved Metals (QCLot: 1772205) - continued |            |        |          |      |                                        |              |                     |      |           |
| Cesium, dissolved                             | 7440-46-2  | E421   | 0.00001  | mg/L | 0.05 mg/L                              | 97.5         | 80.0                | 120  | ----      |
| Chromium, dissolved                           | 7440-47-3  | E421   | 0.0005   | mg/L | 0.25 mg/L                              | 98.3         | 80.0                | 120  | ----      |
| Cobalt, dissolved                             | 7440-48-4  | E421   | 0.0001   | mg/L | 0.25 mg/L                              | 96.6         | 80.0                | 120  | ----      |
| Copper, dissolved                             | 7440-50-8  | E421   | 0.0002   | mg/L | 0.25 mg/L                              | 93.7         | 80.0                | 120  | ----      |
| Iron, dissolved                               | 7439-89-6  | E421   | 0.01     | mg/L | 1 mg/L                                 | 96.2         | 80.0                | 120  | ----      |
| Lead, dissolved                               | 7439-92-1  | E421   | 0.00005  | mg/L | 0.5 mg/L                               | 100          | 80.0                | 120  | ----      |
| Lithium, dissolved                            | 7439-93-2  | E421   | 0.001    | mg/L | 0.25 mg/L                              | 95.0         | 80.0                | 120  | ----      |
| Magnesium, dissolved                          | 7439-95-4  | E421   | 0.005    | mg/L | 50 mg/L                                | 98.3         | 80.0                | 120  | ----      |
| Manganese, dissolved                          | 7439-96-5  | E421   | 0.0001   | mg/L | 0.25 mg/L                              | 92.7         | 80.0                | 120  | ----      |
| Molybdenum, dissolved                         | 7439-98-7  | E421   | 0.00005  | mg/L | 0.25 mg/L                              | 97.4         | 80.0                | 120  | ----      |
| Nickel, dissolved                             | 7440-02-0  | E421   | 0.0005   | mg/L | 0.5 mg/L                               | 94.3         | 80.0                | 120  | ----      |
| Phosphorus, dissolved                         | 7723-14-0  | E421   | 0.05     | mg/L | 10 mg/L                                | 100          | 80.0                | 120  | ----      |
| Potassium, dissolved                          | 7440-09-7  | E421   | 0.05     | mg/L | 50 mg/L                                | 98.1         | 80.0                | 120  | ----      |
| Rubidium, dissolved                           | 7440-17-7  | E421   | 0.0002   | mg/L | 0.1 mg/L                               | 97.3         | 80.0                | 120  | ----      |
| Selenium, dissolved                           | 7782-49-2  | E421   | 0.00005  | mg/L | 1 mg/L                                 | 99.4         | 80.0                | 120  | ----      |
| Silicon, dissolved                            | 7440-21-3  | E421   | 0.05     | mg/L | 10 mg/L                                | 108          | 80.0                | 120  | ----      |
| Silver, dissolved                             | 7440-22-4  | E421   | 0.00001  | mg/L | 0.1 mg/L                               | 92.3         | 80.0                | 120  | ----      |
| Sodium, dissolved                             | 7440-23-5  | E421   | 0.05     | mg/L | 50 mg/L                                | 96.0         | 80.0                | 120  | ----      |
| Strontium, dissolved                          | 7440-24-6  | E421   | 0.0002   | mg/L | 0.25 mg/L                              | 95.3         | 80.0                | 120  | ----      |
| Sulfur, dissolved                             | 7704-34-9  | E421   | 0.5      | mg/L | 50 mg/L                                | 94.4         | 80.0                | 120  | ----      |
| Tellurium, dissolved                          | 13494-80-9 | E421   | 0.0002   | mg/L | 0.1 mg/L                               | 98.9         | 80.0                | 120  | ----      |
| Thallium, dissolved                           | 7440-28-0  | E421   | 0.00001  | mg/L | 1 mg/L                                 | 99.2         | 80.0                | 120  | ----      |
| Thorium, dissolved                            | 7440-29-1  | E421   | 0.0001   | mg/L | 0.1 mg/L                               | 97.5         | 80.0                | 120  | ----      |
| Tin, dissolved                                | 7440-31-5  | E421   | 0.0001   | mg/L | 0.5 mg/L                               | 99.2         | 80.0                | 120  | ----      |
| Titanium, dissolved                           | 7440-32-6  | E421   | 0.0003   | mg/L | 0.25 mg/L                              | 97.0         | 80.0                | 120  | ----      |
| Tungsten, dissolved                           | 7440-33-7  | E421   | 0.0001   | mg/L | 0.1 mg/L                               | 98.5         | 80.0                | 120  | ----      |
| Uranium, dissolved                            | 7440-61-1  | E421   | 0.00001  | mg/L | 0.005 mg/L                             | 97.7         | 80.0                | 120  | ----      |
| Vanadium, dissolved                           | 7440-62-2  | E421   | 0.0005   | mg/L | 0.5 mg/L                               | 98.4         | 80.0                | 120  | ----      |
| Zinc, dissolved                               | 7440-66-6  | E421   | 0.001    | mg/L | 0.5 mg/L                               | 95.2         | 80.0                | 120  | ----      |
| Zirconium, dissolved                          | 7440-67-7  | E421   | 0.0002   | mg/L | 0.1 mg/L                               | 98.7         | 80.0                | 120  | ----      |
| Mercury, dissolved                            | 7439-97-6  | E509   | 0.000005 | mg/L | 0 mg/L                                 | 99.0         | 80.0                | 120  | ----      |
| Volatile Organic Compounds (QCLot: 1778667)   |            |        |          |      |                                        |              |                     |      |           |
| Benzene                                       | 71-43-2    | E611A  | 0.5      | µg/L | 100 µg/L                               | 98.9         | 70.0                | 130  | ----      |
| Ethylbenzene                                  | 100-41-4   | E611A  | 0.5      | µg/L | 100 µg/L                               | 94.4         | 70.0                | 130  | ----      |
| Methyl-tert-butyl ether [MTBE]                | 1634-04-4  | E611A  | 0.5      | µg/L | 100 µg/L                               | 105          | 70.0                | 130  | ----      |



|                                                         |             |            |     |      |                                        |              |                     |      |           |
|---------------------------------------------------------|-------------|------------|-----|------|----------------------------------------|--------------|---------------------|------|-----------|
| Sub-Matrix: Water                                       |             |            |     |      | Laboratory Control Sample (LCS) Report |              |                     |      |           |
|                                                         |             |            |     |      | Spike                                  | Recovery (%) | Recovery Limits (%) |      |           |
|                                                         |             |            |     |      | Target Concentration                   | LCS          | Low                 | High | Qualifier |
| Volatile Organic Compounds (QCLot: 1778667) - continued |             |            |     |      |                                        |              |                     |      |           |
| Styrene                                                 | 100-42-5    | E611A      | 0.5 | µg/L | 100 µg/L                               | 96.4         | 70.0                | 130  | ----      |
| Toluene                                                 | 108-88-3    | E611A      | 0.5 | µg/L | 100 µg/L                               | 97.1         | 70.0                | 130  | ----      |
| Xylene, m+p-                                            | 179601-23-1 | E611A      | 0.4 | µg/L | 200 µg/L                               | 99.0         | 70.0                | 130  | ----      |
| Xylene, o-                                              | 95-47-6     | E611A      | 0.3 | µg/L | 100 µg/L                               | 94.5         | 70.0                | 130  | ----      |
| Hydrocarbons (QCLot: 1778666)                           |             |            |     |      |                                        |              |                     |      |           |
| F1 (C6-C10)                                             | ----        | E581.VH+F1 | 100 | µg/L | 6310 µg/L                              | 85.8         | 70.0                | 130  | ----      |



Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

| Sub-Matrix: Water                           |                  |                                     |            |            | Matrix Spike (MS) Report |           |              |                     |      |           |
|---------------------------------------------|------------------|-------------------------------------|------------|------------|--------------------------|-----------|--------------|---------------------|------|-----------|
|                                             |                  |                                     |            |            | Spike                    |           | Recovery (%) | Recovery Limits (%) |      | Qualifier |
|                                             |                  |                                     |            |            | Concentration            | Target    | MS           | Low                 | High |           |
| Laboratory sample ID                        | Client sample ID | Analyte                             | CAS Number | Method     | Concentration            | Target    | MS           | Low                 | High | Qualifier |
| Anions and Nutrients (QCLot: 1772411)       |                  |                                     |            |            |                          |           |              |                     |      |           |
| FJ2403498-002                               | 3-14             | Fluoride                            | 16984-48-8 | E235.F     | 1.00 mg/L                | 1 mg/L    | 100          | 75.0                | 125  | ----      |
| Anions and Nutrients (QCLot: 1772412)       |                  |                                     |            |            |                          |           |              |                     |      |           |
| FJ2403498-002                               | 3-14             | Chloride                            | 16887-00-6 | E235.Cl    | 101 mg/L                 | 100 mg/L  | 101          | 75.0                | 125  | ----      |
| Anions and Nutrients (QCLot: 1772413)       |                  |                                     |            |            |                          |           |              |                     |      |           |
| FJ2403498-002                               | 3-14             | Bromide                             | 24959-67-9 | E235.Br-L  | 0.534 mg/L               | 0.5 mg/L  | 107          | 75.0                | 125  | ----      |
| Anions and Nutrients (QCLot: 1772414)       |                  |                                     |            |            |                          |           |              |                     |      |           |
| FJ2403498-002                               | 3-14             | Nitrate (as N)                      | 14797-55-8 | E235.NO3-L | 2.50 mg/L                | 2.5 mg/L  | 100          | 75.0                | 125  | ----      |
| Anions and Nutrients (QCLot: 1772415)       |                  |                                     |            |            |                          |           |              |                     |      |           |
| FJ2403498-002                               | 3-14             | Nitrite (as N)                      | 14797-65-0 | E235.NO2-L | 0.499 mg/L               | 0.5 mg/L  | 99.8         | 75.0                | 125  | ----      |
| Anions and Nutrients (QCLot: 1772416)       |                  |                                     |            |            |                          |           |              |                     |      |           |
| FJ2403498-002                               | 3-14             | Sulfate (as SO4)                    | 14808-79-8 | E235.SO4   | 103 mg/L                 | 100 mg/L  | 103          | 75.0                | 125  | ----      |
| Anions and Nutrients (QCLot: 1772417)       |                  |                                     |            |            |                          |           |              |                     |      |           |
| FJ2403498-005                               | 3-11             | Phosphate, ortho-, dissolved (as P) | 14265-44-2 | E378-U     | 0.0298 mg/L              | 0.03 mg/L | 99.5         | 70.0                | 130  | ----      |
| Anions and Nutrients (QCLot: 1772946)       |                  |                                     |            |            |                          |           |              |                     |      |           |
| FJ2403498-005                               | 3-11             | Phosphorus, total dissolved         | 7723-14-0  | E375-T     | 0.0451 mg/L              | 0.05 mg/L | 90.2         | 70.0                | 130  | ----      |
| Anions and Nutrients (QCLot: 1774056)       |                  |                                     |            |            |                          |           |              |                     |      |           |
| FJ2403498-007                               | 3-7              | Kjeldahl nitrogen, total [TKN]      | ----       | E318       | 2.54 mg/L                | 2.5 mg/L  | 101          | 70.0                | 130  | ----      |
| Anions and Nutrients (QCLot: 1774057)       |                  |                                     |            |            |                          |           |              |                     |      |           |
| FJ2403498-006                               | 3-13             | Phosphorus, total                   | 7723-14-0  | E372-U     | 0.0475 mg/L              | 0.05 mg/L | 95.1         | 70.0                | 130  | ----      |
| Anions and Nutrients (QCLot: 1774058)       |                  |                                     |            |            |                          |           |              |                     |      |           |
| VA24D1247-001                               | Anonymous        | Ammonia, total (as N)               | 7664-41-7  | E298       | 0.0927 mg/L              | 0.1 mg/L  | 92.7         | 75.0                | 125  | ----      |
| Anions and Nutrients (QCLot: 1774421)       |                  |                                     |            |            |                          |           |              |                     |      |           |
| FJ2403500-001                               | Anonymous        | Kjeldahl nitrogen, total [TKN]      | ----       | E318       | 2.51 mg/L                | 2.5 mg/L  | 100          | 70.0                | 130  | ----      |
| Anions and Nutrients (QCLot: 1774422)       |                  |                                     |            |            |                          |           |              |                     |      |           |
| FJ2403500-001                               | Anonymous        | Phosphorus, total                   | 7723-14-0  | E372-U     | 0.0480 mg/L              | 0.05 mg/L | 95.9         | 70.0                | 130  | ----      |
| Anions and Nutrients (QCLot: 1774423)       |                  |                                     |            |            |                          |           |              |                     |      |           |
| FJ2403500-001                               | Anonymous        | Ammonia, total (as N)               | 7664-41-7  | E298       | ND mg/L                  | ----      | ND           | 75.0                | 125  | ----      |
| Organic / Inorganic Carbon (QCLot: 1772295) |                  |                                     |            |            |                          |           |              |                     |      |           |
| FJ2403498-002                               | 3-14             | Carbon, dissolved organic [DOC]     | ----       | E358-L     | 5.23 mg/L                | 5 mg/L    | 104          | 70.0                | 130  | ----      |
| Organic / Inorganic Carbon (QCLot: 1772943) |                  |                                     |            |            |                          |           |              |                     |      |           |



| Sub-Matrix: Water                                       |                  |                                 |            |        | Matrix Spike (MS) Report |            |              |                     |      |           |
|---------------------------------------------------------|------------------|---------------------------------|------------|--------|--------------------------|------------|--------------|---------------------|------|-----------|
|                                                         |                  |                                 |            |        | Spike                    |            | Recovery (%) | Recovery Limits (%) |      |           |
| Laboratory sample ID                                    | Client sample ID | Analyte                         | CAS Number | Method | Concentration            | Target     | MS           | Low                 | High | Qualifier |
| Organic / Inorganic Carbon (QCLot: 1772943) - continued |                  |                                 |            |        |                          |            |              |                     |      |           |
| FJ2403498-007                                           | 3-7              | Carbon, dissolved organic [DOC] | ----       | E358-L | 4.96 mg/L                | 5 mg/L     | 99.2         | 70.0                | 130  | ----      |
| Total Metals (QCLot: 1772195)                           |                  |                                 |            |        |                          |            |              |                     |      |           |
| YL2401855-001                                           | Anonymous        | Aluminum, total                 | 7429-90-5  | E420   | 0.203 mg/L               | 0.2 mg/L   | 102          | 70.0                | 130  | ----      |
|                                                         |                  | Antimony, total                 | 7440-36-0  | E420   | 0.0188 mg/L              | 0.02 mg/L  | 94.0         | 70.0                | 130  | ----      |
|                                                         |                  | Arsenic, total                  | 7440-38-2  | E420   | 0.0205 mg/L              | 0.02 mg/L  | 103          | 70.0                | 130  | ----      |
|                                                         |                  | Barium, total                   | 7440-39-3  | E420   | 0.0205 mg/L              | 0.02 mg/L  | 102          | 70.0                | 130  | ----      |
|                                                         |                  | Beryllium, total                | 7440-41-7  | E420   | 0.0379 mg/L              | 0.04 mg/L  | 94.6         | 70.0                | 130  | ----      |
|                                                         |                  | Bismuth, total                  | 7440-69-9  | E420   | 0.00972 mg/L             | 0.01 mg/L  | 97.2         | 70.0                | 130  | ----      |
|                                                         |                  | Boron, total                    | 7440-42-8  | E420   | 0.090 mg/L               | 0.1 mg/L   | 90.5         | 70.0                | 130  | ----      |
|                                                         |                  | Cadmium, total                  | 7440-43-9  | E420   | 0.00393 mg/L             | 0.004 mg/L | 98.2         | 70.0                | 130  | ----      |
|                                                         |                  | Calcium, total                  | 7440-70-2  | E420   | 3.73 mg/L                | 4 mg/L     | 93.3         | 70.0                | 130  | ----      |
|                                                         |                  | Cesium, total                   | 7440-46-2  | E420   | 0.00964 mg/L             | 0.01 mg/L  | 96.4         | 70.0                | 130  | ----      |
|                                                         |                  | Chromium, total                 | 7440-47-3  | E420   | 0.0411 mg/L              | 0.04 mg/L  | 103          | 70.0                | 130  | ----      |
|                                                         |                  | Cobalt, total                   | 7440-48-4  | E420   | 0.0206 mg/L              | 0.02 mg/L  | 103          | 70.0                | 130  | ----      |
|                                                         |                  | Copper, total                   | 7440-50-8  | E420   | 0.0206 mg/L              | 0.02 mg/L  | 103          | 70.0                | 130  | ----      |
|                                                         |                  | Iron, total                     | 7439-89-6  | E420   | 2.02 mg/L                | 2 mg/L     | 101          | 70.0                | 130  | ----      |
|                                                         |                  | Lead, total                     | 7439-92-1  | E420   | 0.0195 mg/L              | 0.02 mg/L  | 97.4         | 70.0                | 130  | ----      |
|                                                         |                  | Lithium, total                  | 7439-93-2  | E420   | 0.0916 mg/L              | 0.1 mg/L   | 91.6         | 70.0                | 130  | ----      |
|                                                         |                  | Magnesium, total                | 7439-95-4  | E420   | 0.972 mg/L               | 1 mg/L     | 97.2         | 70.0                | 130  | ----      |
|                                                         |                  | Manganese, total                | 7439-96-5  | E420   | 0.0204 mg/L              | 0.02 mg/L  | 102          | 70.0                | 130  | ----      |
|                                                         |                  | Molybdenum, total               | 7439-98-7  | E420   | 0.0189 mg/L              | 0.02 mg/L  | 94.6         | 70.0                | 130  | ----      |
|                                                         |                  | Nickel, total                   | 7440-02-0  | E420   | 0.0412 mg/L              | 0.04 mg/L  | 103          | 70.0                | 130  | ----      |
|                                                         |                  | Phosphorus, total               | 7723-14-0  | E420   | 9.62 mg/L                | 10 mg/L    | 96.2         | 70.0                | 130  | ----      |
|                                                         |                  | Potassium, total                | 7440-09-7  | E420   | 3.98 mg/L                | 4 mg/L     | 99.5         | 70.0                | 130  | ----      |
|                                                         |                  | Rubidium, total                 | 7440-17-7  | E420   | 0.0205 mg/L              | 0.02 mg/L  | 103          | 70.0                | 130  | ----      |
|                                                         |                  | Selenium, total                 | 7782-49-2  | E420   | 0.0387 mg/L              | 0.04 mg/L  | 96.7         | 70.0                | 130  | ----      |
|                                                         |                  | Silicon, total                  | 7440-21-3  | E420   | 9.55 mg/L                | 10 mg/L    | 95.5         | 70.0                | 130  | ----      |
|                                                         |                  | Silver, total                   | 7440-22-4  | E420   | 0.00392 mg/L             | 0.004 mg/L | 98.0         | 70.0                | 130  | ----      |
|                                                         |                  | Sodium, total                   | 7440-23-5  | E420   | 1.95 mg/L                | 2 mg/L     | 97.7         | 70.0                | 130  | ----      |
|                                                         |                  | Strontium, total                | 7440-24-6  | E420   | 0.0193 mg/L              | 0.02 mg/L  | 96.4         | 70.0                | 130  | ----      |
|                                                         |                  | Sulfur, total                   | 7704-34-9  | E420   | 17.8 mg/L                | 20 mg/L    | 89.3         | 70.0                | 130  | ----      |
|                                                         |                  | Tellurium, total                | 13494-80-9 | E420   | 0.0405 mg/L              | 0.04 mg/L  | 101          | 70.0                | 130  | ----      |
|                                                         |                  | Thallium, total                 | 7440-28-0  | E420   | 0.00383 mg/L             | 0.004 mg/L | 95.9         | 70.0                | 130  | ----      |
|                                                         |                  | Thorium, total                  | 7440-29-1  | E420   | 0.0200 mg/L              | 0.02 mg/L  | 99.9         | 70.0                | 130  | ----      |
|                                                         |                  | Tin, total                      | 7440-31-5  | E420   | 0.0192 mg/L              | 0.02 mg/L  | 95.9         | 70.0                | 130  | ----      |
|                                                         |                  | Titanium, total                 | 7440-32-6  | E420   | 0.0400 mg/L              | 0.04 mg/L  | 100          | 70.0                | 130  | ----      |
|                                                         |                  | Tungsten, total                 | 7440-33-7  | E420   | 0.0190 mg/L              | 0.02 mg/L  | 95.0         | 70.0                | 130  | ----      |
|                                                         |                  | Uranium, total                  | 7440-61-1  | E420   | 0.00390 mg/L             | 0.004 mg/L | 97.6         | 70.0                | 130  | ----      |
|                                                         |                  | Vanadium, total                 | 7440-62-2  | E420   | 0.101 mg/L               | 0.1 mg/L   | 101          | 70.0                | 130  | ----      |
|                                                         |                  | Zinc, total                     | 7440-66-6  | E420   | 0.418 mg/L               | 0.4 mg/L   | 104          | 70.0                | 130  | ----      |
|                                                         |                  | Zirconium, total                | 7440-67-7  | E420   | 0.0385 mg/L              | 0.04 mg/L  | 96.2         | 70.0                | 130  | ----      |
| Total Metals (QCLot: 1776684)                           |                  |                                 |            |        |                          |            |              |                     |      |           |
| FJ2403491-008                                           | Anonymous        | Mercury, total                  | 7439-97-6  | E508   | 0.0000984 mg/L           | 0 mg/L     | 98.4         | 70.0                | 130  | ----      |



| Sub-Matrix: Water                 |                  |                       |            |        | Matrix Spike (MS) Report |            |              |                     |      |           |
|-----------------------------------|------------------|-----------------------|------------|--------|--------------------------|------------|--------------|---------------------|------|-----------|
|                                   |                  |                       |            |        | Spike                    |            | Recovery (%) | Recovery Limits (%) |      |           |
| Laboratory sample ID              | Client sample ID | Analyte               | CAS Number | Method | Concentration            | Target     | MS           | Low                 | High | Qualifier |
| Total Metals (QCLot: 1776685)     |                  |                       |            |        |                          |            |              |                     |      |           |
| KS2404812-001                     | Anonymous        | Mercury, total        | 7439-97-6  | E508   | 0.0000984 mg/L           | 0 mg/L     | 98.4         | 70.0                | 130  | ----      |
| Dissolved Metals (QCLot: 1772205) |                  |                       |            |        |                          |            |              |                     |      |           |
| YL2401855-002                     | Anonymous        | Aluminum, dissolved   | 7429-90-5  | E421   | 0.210 mg/L               | 0.2 mg/L   | 105          | 70.0                | 130  | ----      |
|                                   |                  | Antimony, dissolved   | 7440-36-0  | E421   | 0.0181 mg/L              | 0.02 mg/L  | 90.7         | 70.0                | 130  | ----      |
|                                   |                  | Arsenic, dissolved    | 7440-38-2  | E421   | 0.0202 mg/L              | 0.02 mg/L  | 101          | 70.0                | 130  | ----      |
|                                   |                  | Barium, dissolved     | 7440-39-3  | E421   | 0.0199 mg/L              | 0.02 mg/L  | 99.3         | 70.0                | 130  | ----      |
|                                   |                  | Beryllium, dissolved  | 7440-41-7  | E421   | 0.0397 mg/L              | 0.04 mg/L  | 99.2         | 70.0                | 130  | ----      |
|                                   |                  | Bismuth, dissolved    | 7440-69-9  | E421   | 0.0103 mg/L              | 0.01 mg/L  | 103          | 70.0                | 130  | ----      |
|                                   |                  | Boron, dissolved      | 7440-42-8  | E421   | 0.090 mg/L               | 0.1 mg/L   | 90.3         | 70.0                | 130  | ----      |
|                                   |                  | Cadmium, dissolved    | 7440-43-9  | E421   | 0.00390 mg/L             | 0.004 mg/L | 97.6         | 70.0                | 130  | ----      |
|                                   |                  | Calcium, dissolved    | 7440-70-2  | E421   | 3.94 mg/L                | 4 mg/L     | 98.4         | 70.0                | 130  | ----      |
|                                   |                  | Cesium, dissolved     | 7440-46-2  | E421   | 0.00962 mg/L             | 0.01 mg/L  | 96.2         | 70.0                | 130  | ----      |
|                                   |                  | Chromium, dissolved   | 7440-47-3  | E421   | 0.0408 mg/L              | 0.04 mg/L  | 102          | 70.0                | 130  | ----      |
|                                   |                  | Cobalt, dissolved     | 7440-48-4  | E421   | 0.0198 mg/L              | 0.02 mg/L  | 99.1         | 70.0                | 130  | ----      |
|                                   |                  | Copper, dissolved     | 7440-50-8  | E421   | 0.0199 mg/L              | 0.02 mg/L  | 99.4         | 70.0                | 130  | ----      |
|                                   |                  | Iron, dissolved       | 7439-89-6  | E421   | 2.04 mg/L                | 2 mg/L     | 102          | 70.0                | 130  | ----      |
|                                   |                  | Lead, dissolved       | 7439-92-1  | E421   | 0.0206 mg/L              | 0.02 mg/L  | 103          | 70.0                | 130  | ----      |
|                                   |                  | Lithium, dissolved    | 7439-93-2  | E421   | 0.0972 mg/L              | 0.1 mg/L   | 97.2         | 70.0                | 130  | ----      |
|                                   |                  | Magnesium, dissolved  | 7439-95-4  | E421   | 1.01 mg/L                | 1 mg/L     | 101          | 70.0                | 130  | ----      |
|                                   |                  | Manganese, dissolved  | 7439-96-5  | E421   | 0.0200 mg/L              | 0.02 mg/L  | 100          | 70.0                | 130  | ----      |
|                                   |                  | Molybdenum, dissolved | 7439-98-7  | E421   | 0.0188 mg/L              | 0.02 mg/L  | 93.9         | 70.0                | 130  | ----      |
|                                   |                  | Nickel, dissolved     | 7440-02-0  | E421   | 0.0396 mg/L              | 0.04 mg/L  | 98.9         | 70.0                | 130  | ----      |
|                                   |                  | Phosphorus, dissolved | 7723-14-0  | E421   | 10.0 mg/L                | 10 mg/L    | 100          | 70.0                | 130  | ----      |
|                                   |                  | Potassium, dissolved  | 7440-09-7  | E421   | 3.97 mg/L                | 4 mg/L     | 99.4         | 70.0                | 130  | ----      |
|                                   |                  | Rubidium, dissolved   | 7440-17-7  | E421   | 0.0198 mg/L              | 0.02 mg/L  | 99.3         | 70.0                | 130  | ----      |
|                                   |                  | Selenium, dissolved   | 7782-49-2  | E421   | 0.0401 mg/L              | 0.04 mg/L  | 100          | 70.0                | 130  | ----      |
|                                   |                  | Silicon, dissolved    | 7440-21-3  | E421   | 10.00 mg/L               | 10 mg/L    | 100.0        | 70.0                | 130  | ----      |
|                                   |                  | Silver, dissolved     | 7440-22-4  | E421   | 0.00389 mg/L             | 0.004 mg/L | 97.2         | 70.0                | 130  | ----      |
|                                   |                  | Sodium, dissolved     | 7440-23-5  | E421   | 1.96 mg/L                | 2 mg/L     | 98.1         | 70.0                | 130  | ----      |
|                                   |                  | Strontium, dissolved  | 7440-24-6  | E421   | 0.0191 mg/L              | 0.02 mg/L  | 95.4         | 70.0                | 130  | ----      |
|                                   |                  | Sulfur, dissolved     | 7704-34-9  | E421   | 20.2 mg/L                | 20 mg/L    | 101          | 70.0                | 130  | ----      |
|                                   |                  | Tellurium, dissolved  | 13494-80-9 | E421   | 0.0384 mg/L              | 0.04 mg/L  | 96.0         | 70.0                | 130  | ----      |
|                                   |                  | Thallium, dissolved   | 7440-28-0  | E421   | 0.00399 mg/L             | 0.004 mg/L | 99.7         | 70.0                | 130  | ----      |
|                                   |                  | Thorium, dissolved    | 7440-29-1  | E421   | 0.0212 mg/L              | 0.02 mg/L  | 106          | 70.0                | 130  | ----      |
|                                   |                  | Tin, dissolved        | 7440-31-5  | E421   | 0.0189 mg/L              | 0.02 mg/L  | 94.7         | 70.0                | 130  | ----      |
|                                   |                  | Titanium, dissolved   | 7440-32-6  | E421   | 0.0398 mg/L              | 0.04 mg/L  | 99.4         | 70.0                | 130  | ----      |
|                                   |                  | Tungsten, dissolved   | 7440-33-7  | E421   | 0.0200 mg/L              | 0.02 mg/L  | 100          | 70.0                | 130  | ----      |
|                                   |                  | Uranium, dissolved    | 7440-61-1  | E421   | 0.00413 mg/L             | 0.004 mg/L | 103          | 70.0                | 130  | ----      |
|                                   |                  | Vanadium, dissolved   | 7440-62-2  | E421   | 0.101 mg/L               | 0.1 mg/L   | 101          | 70.0                | 130  | ----      |
|                                   |                  | Zinc, dissolved       | 7440-66-6  | E421   | 0.391 mg/L               | 0.4 mg/L   | 97.9         | 70.0                | 130  | ----      |
|                                   |                  | Zirconium, dissolved  | 7440-67-7  | E421   | 0.0376 mg/L              | 0.04 mg/L  | 94.0         | 70.0                | 130  | ----      |
| Dissolved Metals (QCLot: 1776691) |                  |                       |            |        |                          |            |              |                     |      |           |
| FJ2403491-007                     | Anonymous        | Mercury, dissolved    | 7439-97-6  | E509   | 0.0000984 mg/L           | 0 mg/L     | 98.4         | 70.0                | 130  | ----      |





| Sub-Matrix: Water                           |                  |                                |             |            | Matrix Spike (MS) Report |           |              |                     |      |           |
|---------------------------------------------|------------------|--------------------------------|-------------|------------|--------------------------|-----------|--------------|---------------------|------|-----------|
|                                             |                  |                                |             |            | Spike                    |           | Recovery (%) | Recovery Limits (%) |      | Qualifier |
| Laboratory sample ID                        | Client sample ID | Analyte                        | CAS Number  | Method     | Concentration            | Target    | MS           | Low                 | High |           |
| Volatile Organic Compounds (QCLot: 1778667) |                  |                                |             |            |                          |           |              |                     |      |           |
| VA24D1139-001                               | Anonymous        | Benzene                        | 71-43-2     | E611A      | 101 µg/L                 | 100 µg/L  | 101          | 60.0                | 140  | ----      |
|                                             |                  | Ethylbenzene                   | 100-41-4    | E611A      | 93.3 µg/L                | 100 µg/L  | 93.3         | 60.0                | 140  | ----      |
|                                             |                  | Methyl-tert-butyl ether [MTBE] | 1634-04-4   | E611A      | 108 µg/L                 | 100 µg/L  | 108          | 60.0                | 140  | ----      |
|                                             |                  | Styrene                        | 100-42-5    | E611A      | 0.23 µg/L                | 100 µg/L  | 0.234        | 60.0                | 140  | K         |
|                                             |                  | Toluene                        | 108-88-3    | E611A      | 95.7 µg/L                | 100 µg/L  | 95.7         | 60.0                | 140  | ----      |
|                                             |                  | Xylene, m+p-                   | 179601-23-1 | E611A      | 188 µg/L                 | 200 µg/L  | 94.2         | 60.0                | 140  | ----      |
|                                             |                  | Xylene, o-                     | 95-47-6     | E611A      | 95.0 µg/L                | 100 µg/L  | 95.0         | 60.0                | 140  | ----      |
| Hydrocarbons (QCLot: 1778666)               |                  |                                |             |            |                          |           |              |                     |      |           |
| VA24D1295-001                               | Anonymous        | F1 (C6-C10)                    | ----        | E581.VH+F1 | 6390 µg/L                | 6310 µg/L | 101          | 60.0                | 140  | ----      |

Qualifiers

| Qualifier | Description                                                         |
|-----------|---------------------------------------------------------------------|
| K         | Matrix Spike recovery outside ALS DQO due to sample matrix effects. |

## QUALITY CONTROL INTERPRETIVE REPORT

|                         |                                                                     |                       |                                                                       |
|-------------------------|---------------------------------------------------------------------|-----------------------|-----------------------------------------------------------------------|
| Work Order              | : FJ2403498                                                         | Page                  | : 1 of 25                                                             |
| Client                  | : NorZinc Ltd.                                                      | Laboratory            | : ALS Environmental - Fort St. John                                   |
| Contact                 | : Andrew Howton                                                     | Account Manager       | : Thomas Chang                                                        |
| Address                 | : 510 Burrard St. Suite 907<br>Vancouver BC Canada V6C 3A8          | Address               | : 11007 Alaska Road<br>Fort St. John, British Columbia Canada V1J 6P3 |
| Telephone               | : ----                                                              | Telephone             | : +1 250 261 5517                                                     |
| Project                 | : ----                                                              | Date Samples Received | : 15-Nov-2024 15:55                                                   |
| PO                      | : ----                                                              | Issue Date            | : 26-Nov-2024 16:53                                                   |
| C-O-C number            | : CZNNOV0132024                                                     |                       |                                                                       |
| Sampler                 | : ----                                                              |                       |                                                                       |
| Site                    | : Canadian Zinc Water License Surveillance Network Program<br>(SNP) |                       |                                                                       |
| Quote number            | : VA24-NORZ100-001                                                  |                       |                                                                       |
| No. of samples received | : 7                                                                 |                       |                                                                       |
| No. of samples analysed | : 7                                                                 |                       |                                                                       |

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

### Key

**Anonymous:** Refers to samples which are not part of this work order, but which formed part of the QC process lot.

**CAS Number:** Chemical Abstracts Service number is a unique identifier assigned to discrete substances.

**DQO:** Data Quality Objective.

**LOR:** Limit of Reporting (detection limit).

**RPD:** Relative Percent Difference.

### Workorder Comments

Holding times are displayed as "----" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

### Summary of Outliers

#### Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- Matrix Spike outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

#### Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

### ***Outliers : Analysis Holding Time Compliance (Breaches)***

- Analysis Holding Time Outliers exist - please see following pages for full details.

### ***Outliers : Frequency of Quality Control Samples***

- No Quality Control Sample Frequency Outliers occur.



**Outliers : Quality Control Samples**  
*Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes*

Matrix: **Water**

| Analyte Group                       | Laboratory sample ID | Client/Ref Sample ID | Analyte | CAS Number | Method | Result               | Limits    | Comment                                         |
|-------------------------------------|----------------------|----------------------|---------|------------|--------|----------------------|-----------|-------------------------------------------------|
| <b>Matrix Spike (MS) Recoveries</b> |                      |                      |         |            |        |                      |           |                                                 |
| Volatile Organic Compounds          | Anonymous            | Anonymous            | Styrene | 100-42-5   | E611A  | 0.234 % <sup>K</sup> | 60.0-140% | Recovery less than lower data quality objective |

**Result Qualifiers**

| Qualifier | Description                                                         |
|-----------|---------------------------------------------------------------------|
| K         | Matrix Spike recovery outside ALS DQO due to sample matrix effects. |



## Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

| Analyte Group : Analytical Method                         | Method    | Sampling Date | Extraction / Preparation |               |        |          | Analysis      |               |        |      |
|-----------------------------------------------------------|-----------|---------------|--------------------------|---------------|--------|----------|---------------|---------------|--------|------|
| Container / Client Sample ID(s)                           |           |               | Preparation Date         | Holding Times |        | Eval     | Analysis Date | Holding Times |        | Eval |
|                                                           |           |               |                          | Rec           | Actual |          |               | Rec           | Actual |      |
| Anions and Nutrients : Ammonia by Fluorescence            |           |               |                          |               |        |          |               |               |        |      |
| Amber glass total (lab preserved)<br>3-11                 | E298      | 13-Nov-2024   | 19-Nov-2024              | 3 days        | 6 days | ✖<br>EHT | 21-Nov-2024   | 28 days       | 2 days | ✓    |
| Anions and Nutrients : Ammonia by Fluorescence            |           |               |                          |               |        |          |               |               |        |      |
| Amber glass total (lab preserved)<br>3-13                 | E298      | 13-Nov-2024   | 19-Nov-2024              | 3 days        | 6 days | ✖<br>EHT | 21-Nov-2024   | 28 days       | 2 days | ✓    |
| Anions and Nutrients : Ammonia by Fluorescence            |           |               |                          |               |        |          |               |               |        |      |
| Amber glass total (lab preserved)<br>3-7                  | E298      | 13-Nov-2024   | 19-Nov-2024              | 3 days        | 6 days | ✖<br>EHT | 21-Nov-2024   | 28 days       | 2 days | ✓    |
| Anions and Nutrients : Ammonia by Fluorescence            |           |               |                          |               |        |          |               |               |        |      |
| Amber glass total (lab preserved)<br>3-10                 | E298      | 13-Nov-2024   | 20-Nov-2024              | 3 days        | 7 days | ✖<br>EHT | 21-Nov-2024   | 28 days       | 2 days | ✓    |
| Anions and Nutrients : Bromide in Water by IC (Low Level) |           |               |                          |               |        |          |               |               |        |      |
| HDPE<br>3-10                                              | E235.Br-L | 13-Nov-2024   | 18-Nov-2024              | 28 days       | 5 days | ✓        | 18-Nov-2024   | 28 days       | 5 days | ✓    |
| Anions and Nutrients : Bromide in Water by IC (Low Level) |           |               |                          |               |        |          |               |               |        |      |
| HDPE<br>3-11                                              | E235.Br-L | 13-Nov-2024   | 18-Nov-2024              | 28 days       | 5 days | ✓        | 18-Nov-2024   | 28 days       | 5 days | ✓    |
| Anions and Nutrients : Bromide in Water by IC (Low Level) |           |               |                          |               |        |          |               |               |        |      |
| HDPE<br>3-13                                              | E235.Br-L | 13-Nov-2024   | 18-Nov-2024              | 28 days       | 5 days | ✓        | 18-Nov-2024   | 28 days       | 5 days | ✓    |



Matrix: **Water** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

| Analyte Group : Analytical Method                         | Method    | Sampling Date | Extraction / Preparation |               |        |      | Analysis      |               |        |      |
|-----------------------------------------------------------|-----------|---------------|--------------------------|---------------|--------|------|---------------|---------------|--------|------|
| Container / Client Sample ID(s)                           |           |               | Preparation Date         | Holding Times |        | Eval | Analysis Date | Holding Times |        | Eval |
|                                                           |           |               |                          | Rec           | Actual |      |               | Rec           | Actual |      |
| Anions and Nutrients : Bromide in Water by IC (Low Level) |           |               |                          |               |        |      |               |               |        |      |
| HDPE<br>3-14                                              | E235.Br-L | 13-Nov-2024   | 18-Nov-2024              | 28 days       | 5 days | ✓    | 18-Nov-2024   | 28 days       | 6 days | ✓    |
| Anions and Nutrients : Bromide in Water by IC (Low Level) |           |               |                          |               |        |      |               |               |        |      |
| HDPE<br>3-16                                              | E235.Br-L | 13-Nov-2024   | 18-Nov-2024              | 28 days       | 5 days | ✓    | 18-Nov-2024   | 28 days       | 6 days | ✓    |
| Anions and Nutrients : Bromide in Water by IC (Low Level) |           |               |                          |               |        |      |               |               |        |      |
| HDPE<br>3-4                                               | E235.Br-L | 12-Nov-2024   | 18-Nov-2024              | 28 days       | 6 days | ✓    | 18-Nov-2024   | 28 days       | 6 days | ✓    |
| Anions and Nutrients : Bromide in Water by IC (Low Level) |           |               |                          |               |        |      |               |               |        |      |
| HDPE<br>3-7                                               | E235.Br-L | 13-Nov-2024   | 18-Nov-2024              | 28 days       | 6 days | ✓    | 18-Nov-2024   | 28 days       | 6 days | ✓    |
| Anions and Nutrients : Chloride in Water by IC            |           |               |                          |               |        |      |               |               |        |      |
| HDPE<br>3-10                                              | E235.Cl   | 13-Nov-2024   | 18-Nov-2024              | 28 days       | 5 days | ✓    | 18-Nov-2024   | 28 days       | 5 days | ✓    |
| Anions and Nutrients : Chloride in Water by IC            |           |               |                          |               |        |      |               |               |        |      |
| HDPE<br>3-11                                              | E235.Cl   | 13-Nov-2024   | 18-Nov-2024              | 28 days       | 5 days | ✓    | 18-Nov-2024   | 28 days       | 5 days | ✓    |
| Anions and Nutrients : Chloride in Water by IC            |           |               |                          |               |        |      |               |               |        |      |
| HDPE<br>3-13                                              | E235.Cl   | 13-Nov-2024   | 18-Nov-2024              | 28 days       | 5 days | ✓    | 18-Nov-2024   | 28 days       | 5 days | ✓    |
| Anions and Nutrients : Chloride in Water by IC            |           |               |                          |               |        |      |               |               |        |      |
| HDPE<br>3-14                                              | E235.Cl   | 13-Nov-2024   | 18-Nov-2024              | 28 days       | 5 days | ✓    | 18-Nov-2024   | 28 days       | 6 days | ✓    |
| Anions and Nutrients : Chloride in Water by IC            |           |               |                          |               |        |      |               |               |        |      |
| HDPE<br>3-16                                              | E235.Cl   | 13-Nov-2024   | 18-Nov-2024              | 28 days       | 5 days | ✓    | 18-Nov-2024   | 28 days       | 6 days | ✓    |



Matrix: **Water** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

| Analyte Group : Analytical Method<br>Container / Client Sample ID(s)                           | Method  | Sampling Date | Extraction / Preparation |               |        |          | Analysis      |               |        |          |
|------------------------------------------------------------------------------------------------|---------|---------------|--------------------------|---------------|--------|----------|---------------|---------------|--------|----------|
|                                                                                                |         |               | Preparation Date         | Holding Times |        | Eval     | Analysis Date | Holding Times |        | Eval     |
|                                                                                                |         |               |                          | Rec           | Actual |          |               | Rec           | Actual |          |
| Anions and Nutrients : Chloride in Water by IC                                                 |         |               |                          |               |        |          |               |               |        |          |
| HDPE<br>3-4                                                                                    | E235.Cl | 12-Nov-2024   | 18-Nov-2024              | 28 days       | 6 days | ✓        | 18-Nov-2024   | 28 days       | 6 days | ✓        |
| Anions and Nutrients : Chloride in Water by IC                                                 |         |               |                          |               |        |          |               |               |        |          |
| HDPE<br>3-7                                                                                    | E235.Cl | 13-Nov-2024   | 18-Nov-2024              | 28 days       | 6 days | ✓        | 18-Nov-2024   | 28 days       | 6 days | ✓        |
| Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) |         |               |                          |               |        |          |               |               |        |          |
| HDPE<br>3-10                                                                                   | E378-U  | 13-Nov-2024   | 18-Nov-2024              | 3 days        | 5 days | ✖<br>EHT | 19-Nov-2024   | 3 days        | 6 days | ✖<br>EHT |
| Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) |         |               |                          |               |        |          |               |               |        |          |
| HDPE<br>3-11                                                                                   | E378-U  | 13-Nov-2024   | 18-Nov-2024              | 3 days        | 5 days | ✖<br>EHT | 19-Nov-2024   | 3 days        | 6 days | ✖<br>EHT |
| Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) |         |               |                          |               |        |          |               |               |        |          |
| HDPE<br>3-13                                                                                   | E378-U  | 13-Nov-2024   | 18-Nov-2024              | 3 days        | 5 days | ✖<br>EHT | 19-Nov-2024   | 3 days        | 6 days | ✖<br>EHT |
| Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) |         |               |                          |               |        |          |               |               |        |          |
| HDPE<br>3-7                                                                                    | E378-U  | 13-Nov-2024   | 18-Nov-2024              | 3 days        | 6 days | ✖<br>EHT | 19-Nov-2024   | 3 days        | 6 days | ✖<br>EHT |
| Anions and Nutrients : Fluoride in Water by IC                                                 |         |               |                          |               |        |          |               |               |        |          |
| HDPE<br>3-10                                                                                   | E235.F  | 13-Nov-2024   | 18-Nov-2024              | 28 days       | 5 days | ✓        | 18-Nov-2024   | 28 days       | 5 days | ✓        |
| Anions and Nutrients : Fluoride in Water by IC                                                 |         |               |                          |               |        |          |               |               |        |          |
| HDPE<br>3-11                                                                                   | E235.F  | 13-Nov-2024   | 18-Nov-2024              | 28 days       | 5 days | ✓        | 18-Nov-2024   | 28 days       | 5 days | ✓        |
| Anions and Nutrients : Fluoride in Water by IC                                                 |         |               |                          |               |        |          |               |               |        |          |
| HDPE<br>3-13                                                                                   | E235.F  | 13-Nov-2024   | 18-Nov-2024              | 28 days       | 5 days | ✓        | 18-Nov-2024   | 28 days       | 5 days | ✓        |



Matrix: **Water** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

| Analyte Group : Analytical Method<br>Container / Client Sample ID(s) | Method     | Sampling Date | Extraction / Preparation |               |        |          | Analysis      |               |        |          |
|----------------------------------------------------------------------|------------|---------------|--------------------------|---------------|--------|----------|---------------|---------------|--------|----------|
|                                                                      |            |               | Preparation Date         | Holding Times |        | Eval     | Analysis Date | Holding Times |        | Eval     |
|                                                                      |            |               |                          | Rec           | Actual |          |               | Rec           | Actual |          |
| Anions and Nutrients : Fluoride in Water by IC                       |            |               |                          |               |        |          |               |               |        |          |
| HDPE<br>3-14                                                         | E235.F     | 13-Nov-2024   | 18-Nov-2024              | 28 days       | 5 days | ✓        | 18-Nov-2024   | 28 days       | 6 days | ✓        |
| Anions and Nutrients : Fluoride in Water by IC                       |            |               |                          |               |        |          |               |               |        |          |
| HDPE<br>3-16                                                         | E235.F     | 13-Nov-2024   | 18-Nov-2024              | 28 days       | 5 days | ✓        | 18-Nov-2024   | 28 days       | 6 days | ✓        |
| Anions and Nutrients : Fluoride in Water by IC                       |            |               |                          |               |        |          |               |               |        |          |
| HDPE<br>3-4                                                          | E235.F     | 12-Nov-2024   | 18-Nov-2024              | 28 days       | 6 days | ✓        | 18-Nov-2024   | 28 days       | 6 days | ✓        |
| Anions and Nutrients : Fluoride in Water by IC                       |            |               |                          |               |        |          |               |               |        |          |
| HDPE<br>3-7                                                          | E235.F     | 13-Nov-2024   | 18-Nov-2024              | 28 days       | 6 days | ✓        | 18-Nov-2024   | 28 days       | 6 days | ✓        |
| Anions and Nutrients : Nitrate in Water by IC (Low Level)            |            |               |                          |               |        |          |               |               |        |          |
| HDPE<br>3-10                                                         | E235.NO3-L | 13-Nov-2024   | 18-Nov-2024              | 3 days        | 5 days | ✗<br>EHT | 18-Nov-2024   | 3 days        | 5 days | ✗<br>EHT |
| Anions and Nutrients : Nitrate in Water by IC (Low Level)            |            |               |                          |               |        |          |               |               |        |          |
| HDPE<br>3-11                                                         | E235.NO3-L | 13-Nov-2024   | 18-Nov-2024              | 3 days        | 5 days | ✗<br>EHT | 18-Nov-2024   | 3 days        | 5 days | ✗<br>EHT |
| Anions and Nutrients : Nitrate in Water by IC (Low Level)            |            |               |                          |               |        |          |               |               |        |          |
| HDPE<br>3-13                                                         | E235.NO3-L | 13-Nov-2024   | 18-Nov-2024              | 3 days        | 5 days | ✗<br>EHT | 18-Nov-2024   | 3 days        | 5 days | ✗<br>EHT |
| Anions and Nutrients : Nitrate in Water by IC (Low Level)            |            |               |                          |               |        |          |               |               |        |          |
| HDPE<br>3-14                                                         | E235.NO3-L | 13-Nov-2024   | 18-Nov-2024              | 3 days        | 5 days | ✗<br>EHT | 18-Nov-2024   | 3 days        | 6 days | ✗<br>EHT |
| Anions and Nutrients : Nitrate in Water by IC (Low Level)            |            |               |                          |               |        |          |               |               |        |          |
| HDPE<br>3-16                                                         | E235.NO3-L | 13-Nov-2024   | 18-Nov-2024              | 3 days        | 5 days | ✗<br>EHT | 18-Nov-2024   | 3 days        | 6 days | ✗<br>EHT |





Matrix: **Water** Evaluation: \* = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method                         | Method     | Sampling Date | Extraction / Preparation |               |        |          | Analysis      |               |        |          |
|-----------------------------------------------------------|------------|---------------|--------------------------|---------------|--------|----------|---------------|---------------|--------|----------|
| Container / Client Sample ID(s)                           |            |               | Preparation Date         | Holding Times |        | Eval     | Analysis Date | Holding Times |        | Eval     |
|                                                           |            |               |                          | Rec           | Actual |          |               | Rec           | Actual |          |
| Anions and Nutrients : Nitrate in Water by IC (Low Level) |            |               |                          |               |        |          |               |               |        |          |
| HDPE<br>3-4                                               | E235.NO3-L | 12-Nov-2024   | 18-Nov-2024              | 3 days        | 6 days | ✖<br>EHT | 18-Nov-2024   | 3 days        | 6 days | ✖<br>EHT |
| Anions and Nutrients : Nitrate in Water by IC (Low Level) |            |               |                          |               |        |          |               |               |        |          |
| HDPE<br>3-7                                               | E235.NO3-L | 13-Nov-2024   | 18-Nov-2024              | 3 days        | 6 days | ✖<br>EHT | 18-Nov-2024   | 3 days        | 6 days | ✖<br>EHT |
| Anions and Nutrients : Nitrite in Water by IC (Low Level) |            |               |                          |               |        |          |               |               |        |          |
| HDPE<br>3-10                                              | E235.NO2-L | 13-Nov-2024   | 18-Nov-2024              | 3 days        | 5 days | ✖<br>EHT | 18-Nov-2024   | 3 days        | 5 days | ✖<br>EHT |
| Anions and Nutrients : Nitrite in Water by IC (Low Level) |            |               |                          |               |        |          |               |               |        |          |
| HDPE<br>3-11                                              | E235.NO2-L | 13-Nov-2024   | 18-Nov-2024              | 3 days        | 5 days | ✖<br>EHT | 18-Nov-2024   | 3 days        | 5 days | ✖<br>EHT |
| Anions and Nutrients : Nitrite in Water by IC (Low Level) |            |               |                          |               |        |          |               |               |        |          |
| HDPE<br>3-13                                              | E235.NO2-L | 13-Nov-2024   | 18-Nov-2024              | 3 days        | 5 days | ✖<br>EHT | 18-Nov-2024   | 3 days        | 5 days | ✖<br>EHT |
| Anions and Nutrients : Nitrite in Water by IC (Low Level) |            |               |                          |               |        |          |               |               |        |          |
| HDPE<br>3-14                                              | E235.NO2-L | 13-Nov-2024   | 18-Nov-2024              | 3 days        | 5 days | ✖<br>EHT | 18-Nov-2024   | 3 days        | 6 days | ✖<br>EHT |
| Anions and Nutrients : Nitrite in Water by IC (Low Level) |            |               |                          |               |        |          |               |               |        |          |
| HDPE<br>3-16                                              | E235.NO2-L | 13-Nov-2024   | 18-Nov-2024              | 3 days        | 5 days | ✖<br>EHT | 18-Nov-2024   | 3 days        | 6 days | ✖<br>EHT |
| Anions and Nutrients : Nitrite in Water by IC (Low Level) |            |               |                          |               |        |          |               |               |        |          |
| HDPE<br>3-4                                               | E235.NO2-L | 12-Nov-2024   | 18-Nov-2024              | 3 days        | 6 days | ✖<br>EHT | 18-Nov-2024   | 3 days        | 6 days | ✖<br>EHT |
| Anions and Nutrients : Nitrite in Water by IC (Low Level) |            |               |                          |               |        |          |               |               |        |          |
| HDPE<br>3-7                                               | E235.NO2-L | 13-Nov-2024   | 18-Nov-2024              | 3 days        | 6 days | ✖<br>EHT | 18-Nov-2024   | 3 days        | 6 days | ✖<br>EHT |



Matrix: **Water** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

| Analyte Group : Analytical Method                                              | Method   | Sampling Date | Extraction / Preparation |               |        |      | Analysis      |               |        |      |
|--------------------------------------------------------------------------------|----------|---------------|--------------------------|---------------|--------|------|---------------|---------------|--------|------|
| Container / Client Sample ID(s)                                                |          |               | Preparation Date         | Holding Times |        | Eval | Analysis Date | Holding Times |        | Eval |
|                                                                                |          |               |                          | Rec           | Actual |      |               | Rec           | Actual |      |
| Anions and Nutrients : Sulfate in Water by IC                                  |          |               |                          |               |        |      |               |               |        |      |
| HDPE<br>3-10                                                                   | E235.SO4 | 13-Nov-2024   | 18-Nov-2024              | 28 days       | 5 days | ✓    | 18-Nov-2024   | 28 days       | 5 days | ✓    |
| Anions and Nutrients : Sulfate in Water by IC                                  |          |               |                          |               |        |      |               |               |        |      |
| HDPE<br>3-11                                                                   | E235.SO4 | 13-Nov-2024   | 18-Nov-2024              | 28 days       | 5 days | ✓    | 18-Nov-2024   | 28 days       | 5 days | ✓    |
| Anions and Nutrients : Sulfate in Water by IC                                  |          |               |                          |               |        |      |               |               |        |      |
| HDPE<br>3-13                                                                   | E235.SO4 | 13-Nov-2024   | 18-Nov-2024              | 28 days       | 5 days | ✓    | 18-Nov-2024   | 28 days       | 5 days | ✓    |
| Anions and Nutrients : Sulfate in Water by IC                                  |          |               |                          |               |        |      |               |               |        |      |
| HDPE<br>3-14                                                                   | E235.SO4 | 13-Nov-2024   | 18-Nov-2024              | 28 days       | 5 days | ✓    | 18-Nov-2024   | 28 days       | 6 days | ✓    |
| Anions and Nutrients : Sulfate in Water by IC                                  |          |               |                          |               |        |      |               |               |        |      |
| HDPE<br>3-16                                                                   | E235.SO4 | 13-Nov-2024   | 18-Nov-2024              | 28 days       | 5 days | ✓    | 18-Nov-2024   | 28 days       | 6 days | ✓    |
| Anions and Nutrients : Sulfate in Water by IC                                  |          |               |                          |               |        |      |               |               |        |      |
| HDPE<br>3-4                                                                    | E235.SO4 | 12-Nov-2024   | 18-Nov-2024              | 28 days       | 6 days | ✓    | 18-Nov-2024   | 28 days       | 6 days | ✓    |
| Anions and Nutrients : Sulfate in Water by IC                                  |          |               |                          |               |        |      |               |               |        |      |
| HDPE<br>3-7                                                                    | E235.SO4 | 13-Nov-2024   | 18-Nov-2024              | 28 days       | 6 days | ✓    | 18-Nov-2024   | 28 days       | 6 days | ✓    |
| Anions and Nutrients : Total Dissolved Phosphorus by Colourimetry (0.002 mg/L) |          |               |                          |               |        |      |               |               |        |      |
| Amber glass dissolved (sulfuric acid)<br>3-10                                  | E375-T   | 13-Nov-2024   | 19-Nov-2024              | 28 days       | 6 days | ✓    | 20-Nov-2024   | 28 days       | 7 days | ✓    |
| Anions and Nutrients : Total Dissolved Phosphorus by Colourimetry (0.002 mg/L) |          |               |                          |               |        |      |               |               |        |      |
| Amber glass dissolved (sulfuric acid)<br>3-11                                  | E375-T   | 13-Nov-2024   | 19-Nov-2024              | 28 days       | 6 days | ✓    | 20-Nov-2024   | 28 days       | 7 days | ✓    |



Matrix: **Water** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

| Analyte Group : Analytical Method                                              | Method | Sampling Date | Extraction / Preparation |               |        |          | Analysis      |               |        |      |
|--------------------------------------------------------------------------------|--------|---------------|--------------------------|---------------|--------|----------|---------------|---------------|--------|------|
| Container / Client Sample ID(s)                                                |        |               | Preparation Date         | Holding Times |        | Eval     | Analysis Date | Holding Times |        | Eval |
|                                                                                |        |               |                          | Rec           | Actual |          |               | Rec           | Actual |      |
| Anions and Nutrients : Total Dissolved Phosphorus by Colourimetry (0.002 mg/L) |        |               |                          |               |        |          |               |               |        |      |
| Amber glass dissolved (sulfuric acid)<br>3-13                                  | E375-T | 13-Nov-2024   | 19-Nov-2024              | 28 days       | 6 days | ✓        | 20-Nov-2024   | 28 days       | 7 days | ✓    |
| Anions and Nutrients : Total Dissolved Phosphorus by Colourimetry (0.002 mg/L) |        |               |                          |               |        |          |               |               |        |      |
| Amber glass dissolved (sulfuric acid)<br>3-7                                   | E375-T | 13-Nov-2024   | 19-Nov-2024              | 28 days       | 6 days | ✓        | 20-Nov-2024   | 28 days       | 7 days | ✓    |
| Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)     |        |               |                          |               |        |          |               |               |        |      |
| Amber glass total (lab preserved)<br>3-11                                      | E318   | 13-Nov-2024   | 19-Nov-2024              | 3 days        | 6 days | ✗<br>EHT | 21-Nov-2024   | 28 days       | 2 days | ✓    |
| Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)     |        |               |                          |               |        |          |               |               |        |      |
| Amber glass total (lab preserved)<br>3-13                                      | E318   | 13-Nov-2024   | 19-Nov-2024              | 3 days        | 6 days | ✗<br>EHT | 21-Nov-2024   | 28 days       | 2 days | ✓    |
| Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)     |        |               |                          |               |        |          |               |               |        |      |
| Amber glass total (lab preserved)<br>3-7                                       | E318   | 13-Nov-2024   | 19-Nov-2024              | 3 days        | 6 days | ✗<br>EHT | 21-Nov-2024   | 28 days       | 2 days | ✓    |
| Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)     |        |               |                          |               |        |          |               |               |        |      |
| Amber glass total (lab preserved)<br>3-10                                      | E318   | 13-Nov-2024   | 20-Nov-2024              | 3 days        | 7 days | ✗<br>EHT | 21-Nov-2024   | 28 days       | 2 days | ✓    |
| Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)           |        |               |                          |               |        |          |               |               |        |      |
| Amber glass total (lab preserved)<br>3-11                                      | E372-U | 13-Nov-2024   | 19-Nov-2024              | 3 days        | 6 days | ✗<br>EHT | 20-Nov-2024   | 28 days       | 0 days | ✓    |
| Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)           |        |               |                          |               |        |          |               |               |        |      |
| Amber glass total (lab preserved)<br>3-13                                      | E372-U | 13-Nov-2024   | 19-Nov-2024              | 3 days        | 6 days | ✗<br>EHT | 20-Nov-2024   | 28 days       | 0 days | ✓    |
| Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)           |        |               |                          |               |        |          |               |               |        |      |
| Amber glass total (lab preserved)<br>3-7                                       | E372-U | 13-Nov-2024   | 19-Nov-2024              | 3 days        | 6 days | ✗<br>EHT | 20-Nov-2024   | 28 days       | 0 days | ✓    |



Matrix: **Water** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

| Analyte Group : Analytical Method                                    | Method | Sampling Date | Extraction / Preparation |               |        |          | Analysis      |               |        |      |
|----------------------------------------------------------------------|--------|---------------|--------------------------|---------------|--------|----------|---------------|---------------|--------|------|
| Container / Client Sample ID(s)                                      |        |               | Preparation Date         | Holding Times |        | Eval     | Analysis Date | Holding Times |        | Eval |
|                                                                      |        |               |                          | Rec           | Actual |          |               | Rec           | Actual |      |
| Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L) |        |               |                          |               |        |          |               |               |        |      |
| Amber glass total (lab preserved)<br>3-10                            | E372-U | 13-Nov-2024   | 20-Nov-2024              | 3 days        | 7 days | ✖<br>EHT | 20-Nov-2024   | 28 days       | 1 days | ✓    |
| Dissolved Metals : Dissolved Mercury in Water by CVAAS               |        |               |                          |               |        |          |               |               |        |      |
| Glass vial - dissolved (lab preserved)<br>3-10                       | E509   | 13-Nov-2024   | 21-Nov-2024              | 28 days       | 8 days | ✓        | 21-Nov-2024   | 28 days       | 8 days | ✓    |
| Dissolved Metals : Dissolved Mercury in Water by CVAAS               |        |               |                          |               |        |          |               |               |        |      |
| Glass vial - dissolved (lab preserved)<br>3-11                       | E509   | 13-Nov-2024   | 21-Nov-2024              | 28 days       | 8 days | ✓        | 21-Nov-2024   | 28 days       | 8 days | ✓    |
| Dissolved Metals : Dissolved Mercury in Water by CVAAS               |        |               |                          |               |        |          |               |               |        |      |
| Glass vial - dissolved (lab preserved)<br>3-13                       | E509   | 13-Nov-2024   | 21-Nov-2024              | 28 days       | 8 days | ✓        | 21-Nov-2024   | 28 days       | 8 days | ✓    |
| Dissolved Metals : Dissolved Mercury in Water by CVAAS               |        |               |                          |               |        |          |               |               |        |      |
| Glass vial - dissolved (lab preserved)<br>3-7                        | E509   | 13-Nov-2024   | 21-Nov-2024              | 28 days       | 8 days | ✓        | 21-Nov-2024   | 28 days       | 8 days | ✓    |
| Dissolved Metals : Dissolved Metals in Water by CRC ICPMS            |        |               |                          |               |        |          |               |               |        |      |
| HDPE - dissolved (lab preserved)<br>3-7                              | E421   | 13-Nov-2024   | 19-Nov-2024              | 180 days      | 6 days | ✓        | 20-Nov-2024   | 180 days      | 7 days | ✓    |
| Dissolved Metals : Dissolved Metals in Water by CRC ICPMS            |        |               |                          |               |        |          |               |               |        |      |
| HDPE - dissolved (lab preserved)<br>3-10                             | E421   | 13-Nov-2024   | 19-Nov-2024              | 180 days      | 6 days | ✓        | 21-Nov-2024   | 180 days      | 8 days | ✓    |
| Dissolved Metals : Dissolved Metals in Water by CRC ICPMS            |        |               |                          |               |        |          |               |               |        |      |
| HDPE - dissolved (lab preserved)<br>3-11                             | E421   | 13-Nov-2024   | 19-Nov-2024              | 180 days      | 6 days | ✓        | 21-Nov-2024   | 180 days      | 8 days | ✓    |
| Dissolved Metals : Dissolved Metals in Water by CRC ICPMS            |        |               |                          |               |        |          |               |               |        |      |
| HDPE - dissolved (lab preserved)<br>3-13                             | E421   | 13-Nov-2024   | 19-Nov-2024              | 180 days      | 6 days | ✓        | 21-Nov-2024   | 180 days      | 8 days | ✓    |



Matrix: **Water** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

| Analyte Group : Analytical Method                                               | Method     | Sampling Date | Extraction / Preparation |               |        |      | Analysis      |               |         |      |
|---------------------------------------------------------------------------------|------------|---------------|--------------------------|---------------|--------|------|---------------|---------------|---------|------|
| Container / Client Sample ID(s)                                                 |            |               | Preparation Date         | Holding Times |        | Eval | Analysis Date | Holding Times |         | Eval |
|                                                                                 |            |               |                          | Rec           | Actual |      |               | Rec           | Actual  |      |
| Dissolved Metals : Dissolved Metals in Water by CRC ICPMS                       |            |               |                          |               |        |      |               |               |         |      |
| HDPE - dissolved (lab preserved)<br>3-14                                        | E421       | 13-Nov-2024   | 19-Nov-2024              | 180 days      | 6 days | ✓    | 21-Nov-2024   | 180 days      | 8 days  | ✓    |
| Dissolved Metals : Dissolved Metals in Water by CRC ICPMS                       |            |               |                          |               |        |      |               |               |         |      |
| HDPE - dissolved (lab preserved)<br>3-16                                        | E421       | 13-Nov-2024   | 19-Nov-2024              | 180 days      | 6 days | ✓    | 21-Nov-2024   | 180 days      | 8 days  | ✓    |
| Dissolved Metals : Dissolved Metals in Water by CRC ICPMS                       |            |               |                          |               |        |      |               |               |         |      |
| HDPE - dissolved (lab preserved)<br>3-4                                         | E421       | 12-Nov-2024   | 19-Nov-2024              | 180 days      | 7 days | ✓    | 21-Nov-2024   | 180 days      | 9 days  | ✓    |
| Hydrocarbons : BC PHCs - EPH by GC-FID                                          |            |               |                          |               |        |      |               |               |         |      |
| Amber glass/Teflon lined cap (sodium bisulfate)<br>3-7                          | E601A      | 13-Nov-2024   | 19-Nov-2024              | 14 days       | 6 days | ✓    | 20-Nov-2024   | 40 days       | 1 days  | ✓    |
| Hydrocarbons : VH and F1 by Headspace GC-FID                                    |            |               |                          |               |        |      |               |               |         |      |
| Glass vial (sodium bisulfate)<br>3-7                                            | E581.VH+F1 | 13-Nov-2024   | 22-Nov-2024              | 14 days       | 9 days | ✓    | 22-Nov-2024   | 14 days       | 10 days | ✓    |
| Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level) |            |               |                          |               |        |      |               |               |         |      |
| Amber glass dissolved (sulfuric acid)<br>3-14                                   | E358-L     | 13-Nov-2024   | 18-Nov-2024              | 28 days       | 5 days | ✓    | 18-Nov-2024   | 28 days       | 5 days  | ✓    |
| Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level) |            |               |                          |               |        |      |               |               |         |      |
| Amber glass dissolved (sulfuric acid)<br>3-16                                   | E358-L     | 13-Nov-2024   | 18-Nov-2024              | 28 days       | 5 days | ✓    | 18-Nov-2024   | 28 days       | 5 days  | ✓    |
| Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level) |            |               |                          |               |        |      |               |               |         |      |
| Amber glass dissolved (sulfuric acid)<br>3-10                                   | E358-L     | 13-Nov-2024   | 19-Nov-2024              | 28 days       | 6 days | ✓    | 19-Nov-2024   | 28 days       | 6 days  | ✓    |
| Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level) |            |               |                          |               |        |      |               |               |         |      |
| Amber glass dissolved (sulfuric acid)<br>3-11                                   | E358-L     | 13-Nov-2024   | 19-Nov-2024              | 28 days       | 6 days | ✓    | 19-Nov-2024   | 28 days       | 6 days  | ✓    |



Matrix: **Water** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

| Analyte Group : Analytical Method                                               | Method | Sampling Date | Extraction / Preparation |               |        |      | Analysis      |               |        |      |
|---------------------------------------------------------------------------------|--------|---------------|--------------------------|---------------|--------|------|---------------|---------------|--------|------|
| Container / Client Sample ID(s)                                                 |        |               | Preparation Date         | Holding Times |        | Eval | Analysis Date | Holding Times |        | Eval |
|                                                                                 |        |               |                          | Rec           | Actual |      |               | Rec           | Actual |      |
| Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level) |        |               |                          |               |        |      |               |               |        |      |
| Amber glass dissolved (sulfuric acid)<br>3-13                                   | E358-L | 13-Nov-2024   | 19-Nov-2024              | 28 days       | 6 days | ✓    | 19-Nov-2024   | 28 days       | 6 days | ✓    |
| Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level) |        |               |                          |               |        |      |               |               |        |      |
| Amber glass dissolved (sulfuric acid)<br>3-4                                    | E358-L | 12-Nov-2024   | 18-Nov-2024              | 28 days       | 6 days | ✓    | 18-Nov-2024   | 28 days       | 6 days | ✓    |
| Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level) |        |               |                          |               |        |      |               |               |        |      |
| Amber glass dissolved (sulfuric acid)<br>3-7                                    | E358-L | 13-Nov-2024   | 19-Nov-2024              | 28 days       | 6 days | ✓    | 19-Nov-2024   | 28 days       | 6 days | ✓    |
| Physical Tests : Alkalinity Species by Titration                                |        |               |                          |               |        |      |               |               |        |      |
| HDPE<br>3-10                                                                    | E290   | 13-Nov-2024   | 18-Nov-2024              | 14 days       | 5 days | ✓    | 19-Nov-2024   | 14 days       | 6 days | ✓    |
| Physical Tests : Alkalinity Species by Titration                                |        |               |                          |               |        |      |               |               |        |      |
| HDPE<br>3-11                                                                    | E290   | 13-Nov-2024   | 18-Nov-2024              | 14 days       | 5 days | ✓    | 19-Nov-2024   | 14 days       | 6 days | ✓    |
| Physical Tests : Alkalinity Species by Titration                                |        |               |                          |               |        |      |               |               |        |      |
| HDPE<br>3-13                                                                    | E290   | 13-Nov-2024   | 18-Nov-2024              | 14 days       | 5 days | ✓    | 19-Nov-2024   | 14 days       | 6 days | ✓    |
| Physical Tests : Alkalinity Species by Titration                                |        |               |                          |               |        |      |               |               |        |      |
| HDPE<br>3-14                                                                    | E290   | 13-Nov-2024   | 18-Nov-2024              | 14 days       | 5 days | ✓    | 19-Nov-2024   | 14 days       | 6 days | ✓    |
| Physical Tests : Alkalinity Species by Titration                                |        |               |                          |               |        |      |               |               |        |      |
| HDPE<br>3-16                                                                    | E290   | 13-Nov-2024   | 18-Nov-2024              | 14 days       | 5 days | ✓    | 19-Nov-2024   | 14 days       | 6 days | ✓    |
| Physical Tests : Alkalinity Species by Titration                                |        |               |                          |               |        |      |               |               |        |      |
| HDPE<br>3-4                                                                     | E290   | 12-Nov-2024   | 18-Nov-2024              | 14 days       | 6 days | ✓    | 19-Nov-2024   | 14 days       | 6 days | ✓    |



Matrix: **Water** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

| Analyte Group : Analytical Method<br>Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation |               |         |              | Analysis      |               |         |              |
|----------------------------------------------------------------------|--------|---------------|--------------------------|---------------|---------|--------------|---------------|---------------|---------|--------------|
|                                                                      |        |               | Preparation Date         | Holding Times |         | Eval         | Analysis Date | Holding Times |         | Eval         |
|                                                                      |        |               |                          | Rec           | Actual  |              |               | Rec           | Actual  |              |
| Physical Tests : Alkalinity Species by Titration                     |        |               |                          |               |         |              |               |               |         |              |
| HDPE<br>3-7                                                          | E290   | 13-Nov-2024   | 18-Nov-2024              | 14 days       | 6 days  | ✓            | 19-Nov-2024   | 14 days       | 6 days  | ✓            |
| Physical Tests : Conductivity in Water                               |        |               |                          |               |         |              |               |               |         |              |
| HDPE<br>3-10                                                         | E100   | 13-Nov-2024   | 18-Nov-2024              | 28 days       | 5 days  | ✓            | 19-Nov-2024   | 28 days       | 6 days  | ✓            |
| Physical Tests : Conductivity in Water                               |        |               |                          |               |         |              |               |               |         |              |
| HDPE<br>3-11                                                         | E100   | 13-Nov-2024   | 18-Nov-2024              | 28 days       | 5 days  | ✓            | 19-Nov-2024   | 28 days       | 6 days  | ✓            |
| Physical Tests : Conductivity in Water                               |        |               |                          |               |         |              |               |               |         |              |
| HDPE<br>3-13                                                         | E100   | 13-Nov-2024   | 18-Nov-2024              | 28 days       | 5 days  | ✓            | 19-Nov-2024   | 28 days       | 6 days  | ✓            |
| Physical Tests : Conductivity in Water                               |        |               |                          |               |         |              |               |               |         |              |
| HDPE<br>3-14                                                         | E100   | 13-Nov-2024   | 18-Nov-2024              | 28 days       | 5 days  | ✓            | 19-Nov-2024   | 28 days       | 6 days  | ✓            |
| Physical Tests : Conductivity in Water                               |        |               |                          |               |         |              |               |               |         |              |
| HDPE<br>3-16                                                         | E100   | 13-Nov-2024   | 18-Nov-2024              | 28 days       | 5 days  | ✓            | 19-Nov-2024   | 28 days       | 6 days  | ✓            |
| Physical Tests : Conductivity in Water                               |        |               |                          |               |         |              |               |               |         |              |
| HDPE<br>3-4                                                          | E100   | 12-Nov-2024   | 18-Nov-2024              | 28 days       | 6 days  | ✓            | 19-Nov-2024   | 28 days       | 6 days  | ✓            |
| Physical Tests : Conductivity in Water                               |        |               |                          |               |         |              |               |               |         |              |
| HDPE<br>3-7                                                          | E100   | 13-Nov-2024   | 18-Nov-2024              | 28 days       | 6 days  | ✓            | 19-Nov-2024   | 28 days       | 6 days  | ✓            |
| Physical Tests : pH by Meter                                         |        |               |                          |               |         |              |               |               |         |              |
| HDPE<br>3-13                                                         | E108   | 13-Nov-2024   | 18-Nov-2024              | 0.25 hrs      | 129 hrs | ✖<br>EHTR-FM | 19-Nov-2024   | 0.25 hrs      | 139 hrs | ✖<br>EHTR-FM |



Matrix: **Water** Evaluation: \* = Holding time exceedance ; ✓ = Within Holding Time

| Analyte Group : Analytical Method  | Method | Sampling Date | Extraction / Preparation |               |         |              | Analysis      |               |         |              |  |
|------------------------------------|--------|---------------|--------------------------|---------------|---------|--------------|---------------|---------------|---------|--------------|--|
| Container / Client Sample ID(s)    |        |               | Preparation Date         | Holding Times |         | Eval         | Analysis Date | Holding Times |         | Eval         |  |
|                                    |        |               |                          | Rec           | Actual  |              |               | Rec           | Actual  |              |  |
| Physical Tests : pH by Meter       |        |               |                          |               |         |              |               |               |         |              |  |
| HDPE<br>3-11                       | E108   | 13-Nov-2024   | 18-Nov-2024              | 0.25 hrs      | 129 hrs | *<br>EHTR-FM | 19-Nov-2024   | 0.25 hrs      | 140 hrs | *<br>EHTR-FM |  |
| Physical Tests : pH by Meter       |        |               |                          |               |         |              |               |               |         |              |  |
| HDPE<br>3-10                       | E108   | 13-Nov-2024   | 18-Nov-2024              | 0.25 hrs      | 130 hrs | *<br>EHTR-FM | 19-Nov-2024   | 0.25 hrs      | 140 hrs | *<br>EHTR-FM |  |
| Physical Tests : pH by Meter       |        |               |                          |               |         |              |               |               |         |              |  |
| HDPE<br>3-14                       | E108   | 13-Nov-2024   | 18-Nov-2024              | 0.25 hrs      | 131 hrs | *<br>EHTR-FM | 19-Nov-2024   | 0.25 hrs      | 141 hrs | *<br>EHTR-FM |  |
| Physical Tests : pH by Meter       |        |               |                          |               |         |              |               |               |         |              |  |
| HDPE<br>3-16                       | E108   | 13-Nov-2024   | 18-Nov-2024              | 0.25 hrs      | 131 hrs | *<br>EHTR-FM | 19-Nov-2024   | 0.25 hrs      | 142 hrs | *<br>EHTR-FM |  |
| Physical Tests : pH by Meter       |        |               |                          |               |         |              |               |               |         |              |  |
| HDPE<br>3-7                        | E108   | 13-Nov-2024   | 18-Nov-2024              | 0.25 hrs      | 132 hrs | *<br>EHTR-FM | 19-Nov-2024   | 0.25 hrs      | 142 hrs | *<br>EHTR-FM |  |
| Physical Tests : pH by Meter       |        |               |                          |               |         |              |               |               |         |              |  |
| HDPE<br>3-4                        | E108   | 12-Nov-2024   | 18-Nov-2024              | 0.25 hrs      | 141 hrs | *<br>EHTR-FM | 19-Nov-2024   | 0.25 hrs      | 151 hrs | *<br>EHTR-FM |  |
| Physical Tests : TDS by Gravimetry |        |               |                          |               |         |              |               |               |         |              |  |
| HDPE<br>3-10                       | E162   | 13-Nov-2024   | ----                     | ----          | ----    |              | 20-Nov-2024   | 7 days        | 7 days  | ✓            |  |
| Physical Tests : TDS by Gravimetry |        |               |                          |               |         |              |               |               |         |              |  |
| HDPE<br>3-11                       | E162   | 13-Nov-2024   | ----                     | ----          | ----    |              | 20-Nov-2024   | 7 days        | 7 days  | ✓            |  |
| Physical Tests : TDS by Gravimetry |        |               |                          |               |         |              |               |               |         |              |  |
| HDPE<br>3-13                       | E162   | 13-Nov-2024   | ----                     | ----          | ----    |              | 20-Nov-2024   | 7 days        | 7 days  | ✓            |  |





Matrix: **Water** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

| Analyte Group : Analytical Method<br>Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation |               |        |      | Analysis      |               |        |      |
|----------------------------------------------------------------------|--------|---------------|--------------------------|---------------|--------|------|---------------|---------------|--------|------|
|                                                                      |        |               | Preparation Date         | Holding Times |        | Eval | Analysis Date | Holding Times |        | Eval |
|                                                                      |        |               |                          | Rec           | Actual |      |               | Rec           | Actual |      |
| Physical Tests : TDS by Gravimetry                                   |        |               |                          |               |        |      |               |               |        |      |
| HDPE<br>3-14                                                         | E162   | 13-Nov-2024   | ----                     | ----          | ----   |      | 20-Nov-2024   | 7 days        | 7 days | ✓    |
| Physical Tests : TDS by Gravimetry                                   |        |               |                          |               |        |      |               |               |        |      |
| HDPE<br>3-16                                                         | E162   | 13-Nov-2024   | ----                     | ----          | ----   |      | 20-Nov-2024   | 7 days        | 7 days | ✓    |
| Physical Tests : TDS by Gravimetry                                   |        |               |                          |               |        |      |               |               |        |      |
| HDPE<br>3-4                                                          | E162   | 12-Nov-2024   | ----                     | ----          | ----   |      | 19-Nov-2024   | 7 days        | 7 days | ✓    |
| Physical Tests : TDS by Gravimetry                                   |        |               |                          |               |        |      |               |               |        |      |
| HDPE<br>3-7                                                          | E162   | 13-Nov-2024   | ----                     | ----          | ----   |      | 20-Nov-2024   | 7 days        | 7 days | ✓    |
| Physical Tests : TSS by Gravimetry                                   |        |               |                          |               |        |      |               |               |        |      |
| HDPE<br>3-10                                                         | E160   | 13-Nov-2024   | ----                     | ----          | ----   |      | 20-Nov-2024   | 7 days        | 7 days | ✓    |
| Physical Tests : TSS by Gravimetry                                   |        |               |                          |               |        |      |               |               |        |      |
| HDPE<br>3-11                                                         | E160   | 13-Nov-2024   | ----                     | ----          | ----   |      | 20-Nov-2024   | 7 days        | 7 days | ✓    |
| Physical Tests : TSS by Gravimetry                                   |        |               |                          |               |        |      |               |               |        |      |
| HDPE<br>3-13                                                         | E160   | 13-Nov-2024   | ----                     | ----          | ----   |      | 20-Nov-2024   | 7 days        | 7 days | ✓    |
| Physical Tests : TSS by Gravimetry                                   |        |               |                          |               |        |      |               |               |        |      |
| HDPE<br>3-14                                                         | E160   | 13-Nov-2024   | ----                     | ----          | ----   |      | 20-Nov-2024   | 7 days        | 7 days | ✓    |
| Physical Tests : TSS by Gravimetry                                   |        |               |                          |               |        |      |               |               |        |      |
| HDPE<br>3-16                                                         | E160   | 13-Nov-2024   | ----                     | ----          | ----   |      | 20-Nov-2024   | 7 days        | 7 days | ✓    |



Matrix: **Water** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

| Analyte Group : Analytical Method              | Method | Sampling Date | Extraction / Preparation |               |        |      | Analysis      |               |        |      |
|------------------------------------------------|--------|---------------|--------------------------|---------------|--------|------|---------------|---------------|--------|------|
| Container / Client Sample ID(s)                |        |               | Preparation Date         | Holding Times |        | Eval | Analysis Date | Holding Times |        | Eval |
|                                                |        |               |                          | Rec           | Actual |      |               | Rec           | Actual |      |
| Physical Tests : TSS by Gravimetry             |        |               |                          |               |        |      |               |               |        |      |
| HDPE<br>3-4                                    | E160   | 12-Nov-2024   | ----                     | ----          | ----   |      | 19-Nov-2024   | 7 days        | 7 days | ✓    |
| Physical Tests : TSS by Gravimetry             |        |               |                          |               |        |      |               |               |        |      |
| HDPE<br>3-7                                    | E160   | 13-Nov-2024   | ----                     | ----          | ----   |      | 20-Nov-2024   | 7 days        | 7 days | ✓    |
| Total Metals : Total Mercury in Water by CVAAS |        |               |                          |               |        |      |               |               |        |      |
| Glass vial - total (lab preserved)<br>3-10     | E508   | 13-Nov-2024   | 21-Nov-2024              | 28 days       | 8 days | ✓    | 21-Nov-2024   | 28 days       | 8 days | ✓    |
| Total Metals : Total Mercury in Water by CVAAS |        |               |                          |               |        |      |               |               |        |      |
| Glass vial - total (lab preserved)<br>3-11     | E508   | 13-Nov-2024   | 21-Nov-2024              | 28 days       | 8 days | ✓    | 21-Nov-2024   | 28 days       | 8 days | ✓    |
| Total Metals : Total Mercury in Water by CVAAS |        |               |                          |               |        |      |               |               |        |      |
| Glass vial - total (lab preserved)<br>3-13     | E508   | 13-Nov-2024   | 21-Nov-2024              | 28 days       | 8 days | ✓    | 21-Nov-2024   | 28 days       | 8 days | ✓    |
| Total Metals : Total Mercury in Water by CVAAS |        |               |                          |               |        |      |               |               |        |      |
| Glass vial - total (lab preserved)<br>3-14     | E508   | 13-Nov-2024   | 21-Nov-2024              | 28 days       | 8 days | ✓    | 21-Nov-2024   | 28 days       | 8 days | ✓    |
| Total Metals : Total Mercury in Water by CVAAS |        |               |                          |               |        |      |               |               |        |      |
| Glass vial - total (lab preserved)<br>3-16     | E508   | 13-Nov-2024   | 21-Nov-2024              | 28 days       | 8 days | ✓    | 21-Nov-2024   | 28 days       | 8 days | ✓    |
| Total Metals : Total Mercury in Water by CVAAS |        |               |                          |               |        |      |               |               |        |      |
| Glass vial - total (lab preserved)<br>3-4      | E508   | 12-Nov-2024   | 21-Nov-2024              | 28 days       | 8 days | ✓    | 21-Nov-2024   | 28 days       | 8 days | ✓    |
| Total Metals : Total Mercury in Water by CVAAS |        |               |                          |               |        |      |               |               |        |      |
| Glass vial - total (lab preserved)<br>3-7      | E508   | 13-Nov-2024   | 21-Nov-2024              | 28 days       | 8 days | ✓    | 21-Nov-2024   | 28 days       | 8 days | ✓    |



Matrix: **Water** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

| Analyte Group : Analytical Method<br>Container / Client Sample ID(s) | Method | Sampling Date | Extraction / Preparation |               |        |      | Analysis      |               |         |      |
|----------------------------------------------------------------------|--------|---------------|--------------------------|---------------|--------|------|---------------|---------------|---------|------|
|                                                                      |        |               | Preparation Date         | Holding Times |        | Eval | Analysis Date | Holding Times |         | Eval |
|                                                                      |        |               |                          | Rec           | Actual |      |               | Rec           | Actual  |      |
| Total Metals : Total Metals in Water by CRC ICPMS                    |        |               |                          |               |        |      |               |               |         |      |
| HDPE - total (lab preserved)<br>3-10                                 | E420   | 13-Nov-2024   | 20-Nov-2024              | 180 days      | 7 days | ✓    | 22-Nov-2024   | 180 days      | 9 days  | ✓    |
| Total Metals : Total Metals in Water by CRC ICPMS                    |        |               |                          |               |        |      |               |               |         |      |
| HDPE - total (lab preserved)<br>3-11                                 | E420   | 13-Nov-2024   | 20-Nov-2024              | 180 days      | 7 days | ✓    | 22-Nov-2024   | 180 days      | 9 days  | ✓    |
| Total Metals : Total Metals in Water by CRC ICPMS                    |        |               |                          |               |        |      |               |               |         |      |
| HDPE - total (lab preserved)<br>3-13                                 | E420   | 13-Nov-2024   | 20-Nov-2024              | 180 days      | 7 days | ✓    | 22-Nov-2024   | 180 days      | 9 days  | ✓    |
| Total Metals : Total Metals in Water by CRC ICPMS                    |        |               |                          |               |        |      |               |               |         |      |
| HDPE - total (lab preserved)<br>3-14                                 | E420   | 13-Nov-2024   | 20-Nov-2024              | 180 days      | 7 days | ✓    | 22-Nov-2024   | 180 days      | 9 days  | ✓    |
| Total Metals : Total Metals in Water by CRC ICPMS                    |        |               |                          |               |        |      |               |               |         |      |
| HDPE - total (lab preserved)<br>3-16                                 | E420   | 13-Nov-2024   | 20-Nov-2024              | 180 days      | 7 days | ✓    | 22-Nov-2024   | 180 days      | 9 days  | ✓    |
| Total Metals : Total Metals in Water by CRC ICPMS                    |        |               |                          |               |        |      |               |               |         |      |
| HDPE - total (lab preserved)<br>3-7                                  | E420   | 13-Nov-2024   | 20-Nov-2024              | 180 days      | 7 days | ✓    | 22-Nov-2024   | 180 days      | 9 days  | ✓    |
| Total Metals : Total Metals in Water by CRC ICPMS                    |        |               |                          |               |        |      |               |               |         |      |
| HDPE - total (lab preserved)<br>3-4                                  | E420   | 12-Nov-2024   | 20-Nov-2024              | 180 days      | 8 days | ✓    | 22-Nov-2024   | 180 days      | 9 days  | ✓    |
| Volatile Organic Compounds : BTEX by Headspace GC-MS                 |        |               |                          |               |        |      |               |               |         |      |
| Glass vial (sodium bisulfate)<br>3-7                                 | E611A  | 13-Nov-2024   | 22-Nov-2024              | 14 days       | 9 days | ✓    | 22-Nov-2024   | 14 days       | 10 days | ✓    |

**Legend & Qualifier Definitions**

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended

EHT: Exceeded ALS recommended hold time prior to analysis.

Rec. HT: ALS recommended hold time (see units).



## Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water** Evaluation: ✖ = QC frequency outside specification; ✔ = QC frequency within specification.

| Quality Control Sample Type                                             |            |          | Count |         | Frequency (%) |          |            |
|-------------------------------------------------------------------------|------------|----------|-------|---------|---------------|----------|------------|
| Analytical Methods                                                      | Method     | QC Lot # | QC    | Regular | Actual        | Expected | Evaluation |
| Laboratory Duplicates (DUP)                                             |            |          |       |         |               |          |            |
| Alkalinity Species by Titration                                         | E290       | 1772409  | 1     | 17      | 5.8           | 5.0      | ✔          |
| Ammonia by Fluorescence                                                 | E298       | 1774058  | 2     | 26      | 7.6           | 5.0      | ✔          |
| Bromide in Water by IC (Low Level)                                      | E235.Br-L  | 1772413  | 1     | 20      | 5.0           | 5.0      | ✔          |
| BTEX by Headspace GC-MS                                                 | E611A      | 1778667  | 1     | 3       | 33.3          | 5.0      | ✔          |
| Chloride in Water by IC                                                 | E235.Cl    | 1772412  | 1     | 20      | 5.0           | 5.0      | ✔          |
| Conductivity in Water                                                   | E100       | 1772410  | 1     | 20      | 5.0           | 5.0      | ✔          |
| Dissolved Mercury in Water by CVAAS                                     | E509       | 1776691  | 1     | 20      | 5.0           | 5.0      | ✔          |
| Dissolved Metals in Water by CRC ICPMS                                  | E421       | 1772205  | 1     | 19      | 5.2           | 5.0      | ✔          |
| Dissolved Organic Carbon by Combustion (Low Level)                      | E358-L     | 1772295  | 2     | 32      | 6.2           | 5.0      | ✔          |
| Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) | E378-U     | 1772417  | 1     | 14      | 7.1           | 5.0      | ✔          |
| Fluoride in Water by IC                                                 | E235.F     | 1772411  | 1     | 20      | 5.0           | 5.0      | ✔          |
| Nitrate in Water by IC (Low Level)                                      | E235.NO3-L | 1772414  | 1     | 20      | 5.0           | 5.0      | ✔          |
| Nitrite in Water by IC (Low Level)                                      | E235.NO2-L | 1772415  | 1     | 20      | 5.0           | 5.0      | ✔          |
| pH by Meter                                                             | E108       | 1772408  | 1     | 20      | 5.0           | 5.0      | ✔          |
| Sulfate in Water by IC                                                  | E235.SO4   | 1772416  | 1     | 20      | 5.0           | 5.0      | ✔          |
| TDS by Gravimetry                                                       | E162       | 1774380  | 2     | 31      | 6.4           | 5.0      | ✔          |
| Total Dissolved Phosphorus by Colourimetry (0.002 mg/L)                 | E375-T     | 1772946  | 1     | 4       | 25.0          | 5.0      | ✔          |
| Total Kjeldahl Nitrogen by Fluorescence (Low Level)                     | E318       | 1774056  | 2     | 11      | 18.1          | 5.0      | ✔          |
| Total Mercury in Water by CVAAS                                         | E508       | 1776684  | 2     | 28      | 7.1           | 5.0      | ✔          |
| Total Metals in Water by CRC ICPMS                                      | E420       | 1772195  | 1     | 20      | 5.0           | 5.0      | ✔          |
| Total Phosphorus by Colourimetry (0.002 mg/L)                           | E372-U     | 1774057  | 2     | 11      | 18.1          | 5.0      | ✔          |
| TSS by Gravimetry                                                       | E160       | 1774381  | 2     | 31      | 6.4           | 5.0      | ✔          |
| VH and F1 by Headspace GC-FID                                           | E581.VH+F1 | 1778666  | 1     | 5       | 20.0          | 5.0      | ✔          |
| Laboratory Control Samples (LCS)                                        |            |          |       |         |               |          |            |
| Alkalinity Species by Titration                                         | E290       | 1772409  | 1     | 17      | 5.8           | 5.0      | ✔          |
| Ammonia by Fluorescence                                                 | E298       | 1774058  | 2     | 26      | 7.6           | 5.0      | ✔          |
| BC PHCs - EPH by GC-FID                                                 | E601A      | 1772560  | 1     | 18      | 5.5           | 5.0      | ✔          |
| Bromide in Water by IC (Low Level)                                      | E235.Br-L  | 1772413  | 1     | 20      | 5.0           | 5.0      | ✔          |
| BTEX by Headspace GC-MS                                                 | E611A      | 1778667  | 1     | 3       | 33.3          | 5.0      | ✔          |
| Chloride in Water by IC                                                 | E235.Cl    | 1772412  | 1     | 20      | 5.0           | 5.0      | ✔          |
| Conductivity in Water                                                   | E100       | 1772410  | 1     | 20      | 5.0           | 5.0      | ✔          |
| Dissolved Mercury in Water by CVAAS                                     | E509       | 1776691  | 1     | 20      | 5.0           | 5.0      | ✔          |
| Dissolved Metals in Water by CRC ICPMS                                  | E421       | 1772205  | 1     | 19      | 5.2           | 5.0      | ✔          |
| Dissolved Organic Carbon by Combustion (Low Level)                      | E358-L     | 1772295  | 2     | 32      | 6.2           | 5.0      | ✔          |
| Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) | E378-U     | 1772417  | 1     | 14      | 7.1           | 5.0      | ✔          |
| Fluoride in Water by IC                                                 | E235.F     | 1772411  | 1     | 20      | 5.0           | 5.0      | ✔          |



Matrix: **Water**

Evaluation: ✖ = QC frequency outside specification; ✔ = QC frequency within specification.

| Quality Control Sample Type                                             |            |          | Count |         | Frequency (%) |          |            |
|-------------------------------------------------------------------------|------------|----------|-------|---------|---------------|----------|------------|
| Analytical Methods                                                      | Method     | QC Lot # | QC    | Regular | Actual        | Expected | Evaluation |
| <b>Laboratory Control Samples (LCS) - Continued</b>                     |            |          |       |         |               |          |            |
| Nitrate in Water by IC (Low Level)                                      | E235.NO3-L | 1772414  | 1     | 20      | 5.0           | 5.0      | ✔          |
| Nitrite in Water by IC (Low Level)                                      | E235.NO2-L | 1772415  | 1     | 20      | 5.0           | 5.0      | ✔          |
| pH by Meter                                                             | E108       | 1772408  | 1     | 20      | 5.0           | 5.0      | ✔          |
| Sulfate in Water by IC                                                  | E235.SO4   | 1772416  | 1     | 20      | 5.0           | 5.0      | ✔          |
| TDS by Gravimetry                                                       | E162       | 1774380  | 2     | 31      | 6.4           | 5.0      | ✔          |
| Total Dissolved Phosphorus by Colourimetry (0.002 mg/L)                 | E375-T     | 1772946  | 1     | 4       | 25.0          | 5.0      | ✔          |
| Total Kjeldahl Nitrogen by Fluorescence (Low Level)                     | E318       | 1774056  | 2     | 11      | 18.1          | 5.0      | ✔          |
| Total Mercury in Water by CVAAS                                         | E508       | 1776684  | 2     | 28      | 7.1           | 5.0      | ✔          |
| Total Metals in Water by CRC ICPMS                                      | E420       | 1772195  | 1     | 20      | 5.0           | 5.0      | ✔          |
| Total Phosphorus by Colourimetry (0.002 mg/L)                           | E372-U     | 1774057  | 2     | 11      | 18.1          | 5.0      | ✔          |
| TSS by Gravimetry                                                       | E160       | 1774381  | 2     | 31      | 6.4           | 5.0      | ✔          |
| VH and F1 by Headspace GC-FID                                           | E581.VH+F1 | 1778666  | 1     | 5       | 20.0          | 5.0      | ✔          |
| <b>Method Blanks (MB)</b>                                               |            |          |       |         |               |          |            |
| Alkalinity Species by Titration                                         | E290       | 1772409  | 1     | 17      | 5.8           | 5.0      | ✔          |
| Ammonia by Fluorescence                                                 | E298       | 1774058  | 2     | 26      | 7.6           | 5.0      | ✔          |
| BC PHCs - EPH by GC-FID                                                 | E601A      | 1772560  | 1     | 18      | 5.5           | 5.0      | ✔          |
| Bromide in Water by IC (Low Level)                                      | E235.Br-L  | 1772413  | 1     | 20      | 5.0           | 5.0      | ✔          |
| BTEX by Headspace GC-MS                                                 | E611A      | 1778667  | 1     | 3       | 33.3          | 5.0      | ✔          |
| Chloride in Water by IC                                                 | E235.Cl    | 1772412  | 1     | 20      | 5.0           | 5.0      | ✔          |
| Conductivity in Water                                                   | E100       | 1772410  | 1     | 20      | 5.0           | 5.0      | ✔          |
| Dissolved Mercury in Water by CVAAS                                     | E509       | 1776691  | 1     | 20      | 5.0           | 5.0      | ✔          |
| Dissolved Metals in Water by CRC ICPMS                                  | E421       | 1772205  | 1     | 19      | 5.2           | 5.0      | ✔          |
| Dissolved Organic Carbon by Combustion (Low Level)                      | E358-L     | 1772295  | 2     | 32      | 6.2           | 5.0      | ✔          |
| Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) | E378-U     | 1772417  | 1     | 14      | 7.1           | 5.0      | ✔          |
| Fluoride in Water by IC                                                 | E235.F     | 1772411  | 1     | 20      | 5.0           | 5.0      | ✔          |
| Nitrate in Water by IC (Low Level)                                      | E235.NO3-L | 1772414  | 1     | 20      | 5.0           | 5.0      | ✔          |
| Nitrite in Water by IC (Low Level)                                      | E235.NO2-L | 1772415  | 1     | 20      | 5.0           | 5.0      | ✔          |
| Sulfate in Water by IC                                                  | E235.SO4   | 1772416  | 1     | 20      | 5.0           | 5.0      | ✔          |
| TDS by Gravimetry                                                       | E162       | 1774380  | 2     | 31      | 6.4           | 5.0      | ✔          |
| Total Dissolved Phosphorus by Colourimetry (0.002 mg/L)                 | E375-T     | 1772946  | 1     | 4       | 25.0          | 5.0      | ✔          |
| Total Kjeldahl Nitrogen by Fluorescence (Low Level)                     | E318       | 1774056  | 2     | 11      | 18.1          | 5.0      | ✔          |
| Total Mercury in Water by CVAAS                                         | E508       | 1776684  | 2     | 28      | 7.1           | 5.0      | ✔          |
| Total Metals in Water by CRC ICPMS                                      | E420       | 1772195  | 1     | 20      | 5.0           | 5.0      | ✔          |
| Total Phosphorus by Colourimetry (0.002 mg/L)                           | E372-U     | 1774057  | 2     | 11      | 18.1          | 5.0      | ✔          |
| TSS by Gravimetry                                                       | E160       | 1774381  | 2     | 31      | 6.4           | 5.0      | ✔          |
| VH and F1 by Headspace GC-FID                                           | E581.VH+F1 | 1778666  | 1     | 5       | 20.0          | 5.0      | ✔          |
| <b>Matrix Spikes (MS)</b>                                               |            |          |       |         |               |          |            |
| Ammonia by Fluorescence                                                 | E298       | 1774058  | 2     | 26      | 7.6           | 5.0      | ✔          |
| Bromide in Water by IC (Low Level)                                      | E235.Br-L  | 1772413  | 1     | 20      | 5.0           | 5.0      | ✔          |



Matrix: **Water**

Evaluation: ✖ = QC frequency outside specification; ✔ = QC frequency within specification.

| Quality Control Sample Type                                             |            |          | Count |         | Frequency (%) |          |            |
|-------------------------------------------------------------------------|------------|----------|-------|---------|---------------|----------|------------|
| Analytical Methods                                                      | Method     | QC Lot # | QC    | Regular | Actual        | Expected | Evaluation |
| Matrix Spikes (MS) - Continued                                          |            |          |       |         |               |          |            |
| BTEX by Headspace GC-MS                                                 | E611A      | 1778667  | 1     | 3       | 33.3          | 5.0      | ✔          |
| Chloride in Water by IC                                                 | E235.Cl    | 1772412  | 1     | 20      | 5.0           | 5.0      | ✔          |
| Dissolved Mercury in Water by CVAAS                                     | E509       | 1776691  | 1     | 20      | 5.0           | 5.0      | ✔          |
| Dissolved Metals in Water by CRC ICPMS                                  | E421       | 1772205  | 1     | 19      | 5.2           | 5.0      | ✔          |
| Dissolved Organic Carbon by Combustion (Low Level)                      | E358-L     | 1772295  | 2     | 32      | 6.2           | 5.0      | ✔          |
| Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) | E378-U     | 1772417  | 1     | 14      | 7.1           | 5.0      | ✔          |
| Fluoride in Water by IC                                                 | E235.F     | 1772411  | 1     | 20      | 5.0           | 5.0      | ✔          |
| Nitrate in Water by IC (Low Level)                                      | E235.NO3-L | 1772414  | 1     | 20      | 5.0           | 5.0      | ✔          |
| Nitrite in Water by IC (Low Level)                                      | E235.NO2-L | 1772415  | 1     | 20      | 5.0           | 5.0      | ✔          |
| Sulfate in Water by IC                                                  | E235.SO4   | 1772416  | 1     | 20      | 5.0           | 5.0      | ✔          |
| Total Dissolved Phosphorus by Colourimetry (0.002 mg/L)                 | E375-T     | 1772946  | 1     | 4       | 25.0          | 5.0      | ✔          |
| Total Kjeldahl Nitrogen by Fluorescence (Low Level)                     | E318       | 1774056  | 2     | 11      | 18.1          | 5.0      | ✔          |
| Total Mercury in Water by CVAAS                                         | E508       | 1776684  | 2     | 28      | 7.1           | 5.0      | ✔          |
| Total Metals in Water by CRC ICPMS                                      | E420       | 1772195  | 1     | 20      | 5.0           | 5.0      | ✔          |
| Total Phosphorus by Colourimetry (0.002 mg/L)                           | E372-U     | 1774057  | 2     | 11      | 18.1          | 5.0      | ✔          |
| VH and F1 by Headspace GC-FID                                           | E581.VH+F1 | 1778666  | 1     | 5       | 20.0          | 5.0      | ✔          |



## Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

| Analytical Methods                 | Method / Lab                                | Matrix | Method Reference  | Method Descriptions                                                                                                                                                                                                                                                                                                                                                                                                           |
|------------------------------------|---------------------------------------------|--------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Conductivity in Water              | E100<br>ALS Environmental - Vancouver       | Water  | APHA 2510 (mod)   | Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.                                                                                                                                                                                |
| pH by Meter                        | E108<br>ALS Environmental - Vancouver       | Water  | APHA 4500-H (mod) | pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally $20 \pm 5^\circ\text{C}$ ). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.                                                                                                                                                   |
| TSS by Gravimetry                  | E160<br>ALS Environmental - Vancouver       | Water  | APHA 2540 D (mod) | Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at $104 \pm 1^\circ\text{C}$ , with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples. |
| TDS by Gravimetry                  | E162<br>ALS Environmental - Vancouver       | Water  | APHA 2540 C (mod) | Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at $180 \pm 2^\circ\text{C}$ for 16 hours or to constant weight, with gravimetric measurement of the residue.                                                                                                                                                                                |
| Bromide in Water by IC (Low Level) | E235.Br-L<br>ALS Environmental - Vancouver  | Water  | EPA 300.1 (mod)   | Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.                                                                                                                                                                                                                                                                                                                                    |
| Chloride in Water by IC            | E235.Cl<br>ALS Environmental - Vancouver    | Water  | EPA 300.1 (mod)   | Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.                                                                                                                                                                                                                                                                                                                                    |
| Fluoride in Water by IC            | E235.F<br>ALS Environmental - Vancouver     | Water  | EPA 300.1 (mod)   | Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.                                                                                                                                                                                                                                                                                                                                    |
| Nitrite in Water by IC (Low Level) | E235.NO2-L<br>ALS Environmental - Vancouver | Water  | EPA 300.1 (mod)   | Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.                                                                                                                                                                                                                                                                                                                                    |
| Nitrate in Water by IC (Low Level) | E235.NO3-L<br>ALS Environmental - Vancouver | Water  | EPA 300.1 (mod)   | Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.                                                                                                                                                                                                                                                                                                                                    |



| Analytical Methods                                                      | Method / Lab                                  | Matrix | Method Reference        | Method Descriptions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------------------------------------------------------|-----------------------------------------------|--------|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sulfate in Water by IC                                                  | E235.SO4<br><br>ALS Environmental - Vancouver | Water  | EPA 300.1 (mod)         | Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Alkalinity Species by Titration                                         | E290<br><br>ALS Environmental - Vancouver     | Water  | APHA 2320 B (mod)       | Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.                                                                                                                                                                                                                                                                                                                                                                           |
| Ammonia by Fluorescence                                                 | E298<br><br>ALS Environmental - Vancouver     | Water  | Method Fialab 100, 2018 | Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)                                                                                                                                                                                                                                                                                                                                               |
| Total Kjeldahl Nitrogen by Fluorescence (Low Level)                     | E318<br><br>ALS Environmental - Vancouver     | Water  | Method Fialab 100, 2018 | TKN in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021).                                                                                                                                                                                                                                                                                                                                                  |
| Dissolved Organic Carbon by Combustion (Low Level)                      | E358-L<br><br>ALS Environmental - Vancouver   | Water  | APHA 5310 B (mod)       | Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO <sub>2</sub> . NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC). |
| Total Phosphorus by Colourimetry (0.002 mg/L)                           | E372-U<br><br>ALS Environmental - Vancouver   | Water  | APHA 4500-P E (mod).    | Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Total Dissolved Phosphorus by Colourimetry (0.002 mg/L)                 | E375-T<br><br>ALS Environmental - Vancouver   | Water  | APHA 4500-P E (mod).    | Total Dissolved Phosphorus is determined colourimetrically using a discrete analyzer after filtration through a 0.45 micron filter followed by heated persulfate digestion of the sample.                                                                                                                                                                                                                                                                                                                                                                                              |
| Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L) | E378-U<br><br>ALS Environmental - Vancouver   | Water  | APHA 4500-P F (mod)     | Dissolved Orthophosphate is determined colourimetrically on a sample that has been lab or field filtered through a 0.45 micron membrane filter.<br><br>Field filtration is recommended to ensure test results represent conditions at time of sampling.                                                                                                                                                                                                                                                                                                                                |
| Total Metals in Water by CRC ICPMS                                      | E420<br><br>ALS Environmental - Vancouver     | Water  | EPA 200.2/6020B (mod)   | Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.<br><br>Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.                                                                                                                                                                                                                                                                                                                                                          |





| Analytical Methods                     | Method / Lab                                | Matrix | Method Reference                                    | Method Descriptions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------------------|---------------------------------------------|--------|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Dissolved Metals in Water by CRC ICPMS | E421<br>ALS Environmental - Vancouver       | Water  | APHA 3030B/EPA 6020B (mod)                          | Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.<br><br>Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.                                                                                                                                                                                                                                                                                                                                                                     |
| Total Mercury in Water by CVAAS        | E508<br>ALS Environmental - Vancouver       | Water  | EPA 1631E (mod)                                     | Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Dissolved Mercury in Water by CVAAS    | E509<br>ALS Environmental - Vancouver       | Water  | APHA 3030B/EPA 1631E (mod)                          | Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.                                                                                                                                                                                                                                                                                                                                                                                                                 |
| VH and F1 by Headspace GC-FID          | E581.VH+F1<br>ALS Environmental - Vancouver | Water  | BC MOE Lab Manual / CCME PHC in Soil - Tier 1 (mod) | Volatile Hydrocarbons (VH and F1) is analyzed by static headspace GC-FID. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law.<br><br>Analytical methods for CCME Petroleum Hydrocarbons (PHCs) are validated to comply fully with the Reference Method for the Canada-Wide Standard for PHC. Unless qualified, all required quality control criteria of the CCME PHC method have been met, including response factor and linearity requirements. |
| BC PHCs - EPH by GC-FID                | E601A<br>ALS Environmental - Vancouver      | Water  | BC MOE Lab Manual                                   | Sample extracts are analyzed by GC-FID for BC hydrocarbon fractions.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| BTEX by Headspace GC-MS                | E611A<br>ALS Environmental - Vancouver      | Water  | EPA 8260D (mod)                                     | Volatile Organic Compounds (VOCs) are analyzed by static headspace GC-MS. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law.                                                                                                                                                                                                                                                                                                                    |
| Dissolved Hardness (Calculated)        | EC100<br>ALS Environmental - Vancouver      | Water  | APHA 2340B                                          | "Hardness (as CaCO <sub>3</sub> ), dissolved" is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO <sub>3</sub> equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.                                                                                                                                                                            |
| Hardness (Calculated) from Total Ca/Mg | EC100A<br>ALS Environmental - Vancouver     | Water  | APHA 2340B                                          | "Hardness (as CaCO <sub>3</sub> ), from total Ca/Mg" is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO <sub>3</sub> equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.                                                                            |



| Analytical Methods                                      | Method / Lab                               | Matrix | Method Reference          | Method Descriptions                                                                                                                                                                                                                                                                                                                                             |
|---------------------------------------------------------|--------------------------------------------|--------|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| F1-BTEX                                                 | EC580<br><br>ALS Environmental - Vancouver | Water  | CCME PHC in Soil - Tier 1 | F1-BTEX is calculated as follows: F1-BTEX = F1 (C6-C10) minus benzene, toluene, ethylbenzene and xylenes (BTEX).                                                                                                                                                                                                                                                |
| Preparation Methods                                     | Method / Lab                               | Matrix | Method Reference          | Method Descriptions                                                                                                                                                                                                                                                                                                                                             |
| Preparation for Ammonia                                 | EP298<br><br>ALS Environmental - Vancouver | Water  |                           | Sample preparation for Preserved Nutrients Water Quality Analysis.                                                                                                                                                                                                                                                                                              |
| Digestion for TKN in water                              | EP318<br><br>ALS Environmental - Vancouver | Water  | APHA 4500-Norg D (mod)    | Samples are digested at high temperature using Sulfuric Acid with Copper catalyst, which converts organic nitrogen sources to Ammonia, which is then quantified by the analytical method as TKN. This method is unsuitable for samples containing high levels of nitrate. If nitrate exceeds TKN concentration by ten times or more, results may be biased low. |
| Preparation for Dissolved Organic Carbon for Combustion | EP358<br><br>ALS Environmental - Vancouver | Water  | APHA 5310 B (mod)         | Preparation for Dissolved Organic Carbon                                                                                                                                                                                                                                                                                                                        |
| Digestion for Total Phosphorus in water                 | EP372<br><br>ALS Environmental - Vancouver | Water  | APHA 4500-P E (mod).      | Samples are heated with a persulfate digestion reagent.                                                                                                                                                                                                                                                                                                         |
| Digestion for Dissolved Phosphorus in water             | EP375<br><br>ALS Environmental - Vancouver | Water  | APHA 4500-P E (mod).      | Samples are filtered through a 0.45 micron membrane filter and then heated with a persulfate digestion reagent.                                                                                                                                                                                                                                                 |
| Dissolved Metals Water Filtration                       | EP421<br><br>ALS Environmental - Vancouver | Water  | APHA 3030B                | Water samples are filtered (0.45 um), and preserved with HNO3.                                                                                                                                                                                                                                                                                                  |
| Dissolved Mercury Water Filtration                      | EP509<br><br>ALS Environmental - Vancouver | Water  | APHA 3030B                | Water samples are filtered (0.45 um), and preserved with HCl.                                                                                                                                                                                                                                                                                                   |
| VOCs Preparation for Headspace Analysis                 | EP581<br><br>ALS Environmental - Vancouver | Water  | EPA 5021A (mod)           | Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler. An aliquot of the headspace is then injected into a GC-MS-FID.                                                                                                                                                                                                |
| PHCs and PAHs Hexane Extraction                         | EP601<br><br>ALS Environmental - Vancouver | Water  | EPA 3511 (mod)            | Petroleum Hydrocarbons (PHCs) and Polycyclic Aromatic Hydrocarbons (PAHs) are extracted using a hexane liquid-liquid extraction.                                                                                                                                                                                                                                |



**Canada Toll Free: 1 800 668 9878**

COC Number: **22 -**

COC# CZNNOV0132024

Page 1 of 1

Contact and company name will appear on the final report

**AFFIX ALS BARCODE LABEL HERE**  
(ALS use only)

For all tests with rush TATs requested, please contact your AM to confirm availability

ed-injury claim order

### Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

**SAMPLES ON HOLD**

**EXTENDED STORAGE REQUIRED**

**SUSPECTED HAZARD (see notes**

Telephone : +1 250 261 5517

Environmental Division  
Fort St. John  
Work Order Reference  
FJ2403498

Drinking Water (DW) Samples<sup>1</sup> (client use)

Notes / Specify Limits for result evaluation by selecting from drop-down below  
(Excel COG only)

### Examples taken from a Regulated DW System?

Are samples for human consumption/ use?

☐ YES ☒ NO

SHIPMENT RELEASE (client use)

Released by: Andrew Howton

Date: \_\_\_\_\_

14

Time

Received by:

4

Date \_\_\_\_\_

1.  $\frac{1}{2} \log \frac{1}{2}$  and  $\frac{1}{2} \log \frac{1}{2}$

Time

Received by

10

$$\frac{1}{\sqrt{1-x^2}}$$

Date \_\_\_\_\_

2

100

100

12.

Time:

!

REFER TO BACK PAGE FOR ALL LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY

LOW - CLIENT COPY

\_\_\_\_\_

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.





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EJAE Shipping & Receiving  
Call Out ☒ Expedite  
Priority ☐# of Coolers ☐ Air  
# of Carboys ☐ Ground

Chain of Custody (COC) / Analytical Request Form

COC Number: 22 -

COC# CZNNOV0132024

Canada Toll Free: 1 800 668 9878

Page 1 of 1

Contact and company name below will appear on the final report

Company:

Canadian Zinc

Contact:

Andrew Howton

Phone:

403-968-7471

Company address below will appear on the final report

Street:

510 Burrard St suite 907

City/Province:

Vancouver, BC

Postal Code:

V6C 3A8

Invoice To:

Same as Report To

Copy of Invoice with Report

☐ YES ☒ NO

Company:

Canadian Zinc

Contact:

Canadian Zinc

Project Information

ALS Account # / Quote #

Job #:

PO / AFE:

LSD:

ALS Lab Work Order # (ALS use only):

ALS Sample #

(ALS use only)

Sample Identification and/or Coordinates  
(This description will appear on the report)

Date

(dd-mm-yy)

Time

(hh:mm)

Sample Type

Date

(dd-mm-yy)

Time

(hh:mm)

Sample Type

NUMBER OF CONTAINERS

pH, conductivity, TSS

alkalinity, hardness, Ca, Cl, F-, Mg

K, Na, sulfate, TDS

DOC

Total Hg

Total Metals

Dissolved Zn

Dissolved Hg

Dissolved Metals

NH3, NO2-, TKN

PO43-, Total P, Dissolved P

EPH, BTEX, F1 (C6-C10)

extractable hydrocarbons(C10-C32)

SAMPLES ON HOLD

EXTENDED STORAGE REQUIRED

SUSPECTED HAZARD (see notes)

Reports / Recipients

Select Report Format:

☒ PDF☒ EXCEL☐ EDO (DIGITAL)

Merge QOC/QC Reports with COA

☐ YES☐ NO

N/A

Compare Results to Criteria on Report - provide details below if box checked

Select Distribution:

☒ EMAIL☐ MAIL☐ FAX

Email 1 or Fax

waterresults@nozzinc.com

Email 2

andrew.howton@nozzinc.com

Email 3

Invoice Recipients

Select Invoice Distribution:

☒ EMAIL☐ MAIL☐ FAX

Email 1 or Fax

accounting@nozzinc.com

Email 2

andrew.howton@nozzinc.com

Email 3

Oil and Gas Required Fields (client use)

A/E/Cost Center:

Major/Minor Code:

Routing Code:

Requisitioner:

Location:

ALS Contact:

Sampler:

Turnaround Time (TAT) Requested

☒ Routine [R] if received by 3pm M-F - no surcharges apply☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum☐ 1 day [P1] if received by 3pm M-F - 100% rush surcharge minimum☐ Same day [E2] if received by 10am M-5 - 200% rush surcharge

Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.

Date and Time Required for all E&amp;P TATs:

dd-mm-yy hh:mm am/pm

For all tests with rush TATs requested, please contact your A/E to confirm availability.

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Drinking Water (DW) Samples (client use)

Are samples taken from a Regulated DW System?

☐ YES ☒ NO

Are samples for human consumption use?

☐ YES ☒ NO

SHIPMENT RELEASE (client use)

Released by:

Andrew Howton

Date:

14-Nov-24

Time:

11am

Received by:

A/E

Date:

11/15/2024

Time:

4:55pm

WHITE - LABORATORY COPY

YELLOW - CLIENT COPY

FINAL SHIPMENT RECEPTION (ALS use only)

Date:

11/15/2024

Time:

4:55pm

Date:

11/15/2024

Time:

4:55pm

Date:

11/15/2024

Time:

4:55pm

Date:

11/15/2024

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11/15/2024

Time:

4:55pm

Date:

11/15/2024

Time:

4:55pm

Date:

11/15/2024

Time:

4:55pm

Telephone : +1 250 261 5617

Environmental Division  
Fort St. John  
Work Order Reference  
FJ2403498Notes / Specify Limits for result evaluation by selecting from drop-down below  
(Excel COC only)

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☒ ICE PACKS ☐ FROZEN ☐ COOLING INITIATEDSubmission Comments identified on Sample Receipt Notification: ☐ YES ☐ NOCooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C

INITIAL COOLER TEMPERATURES °C

INITIAL COOLER TEMPERATURES °C

INITIAL COOLER TEMPERATURES °C

INITIAL COOLER TEMPERATURES °C

INITIAL COOLER TEMPERATURES °C

INITIAL COOLER TEMPERATURES °C

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.