



FORTUNE MINERALS LIMITED

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October 31, 2024

Ms. Anneli Jokela
Regulatory Manager
Wek'èezhii Land and Water Board
#1-4905 48th St.
Yellowknife, NT X1A 3S3

Dear Ms. Jokela,

**Subject September 2024 SNP Summary Report
Fortune Minerals Limited NICO Project
Type A Water Licence: W2008L2-0004**

Please accept this letter as our Surveillance Network Monitoring (SNP) summary report for September 2024. This report has been prepared to satisfy the following conditions of the water license:

The licensee shall within 30 days following the month being reported, submit to the Board all data and information required by the "Surveillance Network Program" including the results of the approved quality assurance plan.

Activities

The timing of mine development activities during 2024 and 2025 depends on the financing for the project. Until financing arrangements are finalized, activities at site will be limited to those outlined in the care and maintenance Land Use Permit (W2023C0001).

The Fortune Minerals Limited (Fortune) NICO Project camp site was opened September 10 to 12, 2024. The site was occupied for two days by two Fortune staff and one day by three Fortune staff and five engineering consultants.

The two Fortune staff completed regular duties including:

- a detailed inspection of all facilities at the site. No issues were observed;
- road maintenance (only minor erosion was observed);
- spill inspection. No new spills were observed;
- equipment maintenance including replacement of the batteries in the loader; and,

- collection of SNP samples.

It should be noted that Water Resource Officers inspection was completed on June 4th, 2024 and no major concerns were noted.

Fortune staff also collected cattails and sedges from a wetland on site (Photo 1) for later use in the constructed wetland treatment system pilot study. The cattails and sedges were transported in a cooler (Photo 2) to Maven Water & Environment in Saskatoon for storage in a growth chamber until needed.

The engineering consultants were escorted by two Fortune staff members to complete a tour of the site. A total of 400 kg of ore from the ore storage piles was collected from two of the piles for testing at SGS Lakefield (SGS). The engineers were able to examine ore samples during the collection process. To minimize disturbance to the ore covers, a small hole was cut into the side of the ore pile to extract the samples (Photo 3). The ore was placed in ore sample bags for transportation to Yellowknife and eventually to SGS. The holes were then repaired with a combination of fishing line to sew the seams, duct tape and roofing tar. Roofing tar has been successfully used to repair the ore pile covers in the past.

Water Quality Sampling and Analysis

Water samples were collected from SNP station 5-2 and SNP Station 5-5 on September 12; the analytical results can be found in Appendix I. No licensed parameters were exceeded.

A total of 5 m³ of water was taken from Lou Lake for domestic use during the September site visit. Approximately, 95% was returned as grey water and 5% through the sewage system.

Flow and Volume Measurements

Flows from the portal at SNP 5-2 were average, estimated at 11 m³ per day.

The landfarm was inspected. It was last tested on August 26st, 2015 and the results showed that the landfarm was in compliance with all parameters for fine grained soils. No new material was added to the landfarm.

We trust that this letter and attachment are sufficient for the current requirements. Should you require clarification of some point or wish to discuss something, please contact the undersigned at your convenience.



Yours truly

FORTUNE MINERALS LIMITED

Rick Schryer, Ph.D.
VP Environmental and Regulatory Affairs

cc. Clint Ambrose, GNWT
Meaghan MacIntyre-Newell, GNWT
Ian Ziemann, GNWT
Karen Gignac, GNWT



PHOTOGRAPHS

PHOTO 1 Wetland used for cattail and sedge collection at the NICO site



PHOTO 2 Collected cattails and sedges



PHOTO 3 Ore sample collection



PHOTO 4 Ore sample collection hole repair



APPENDIX I

Water Quality Sampling Results SNP 5-2 and SNP 5-5 September 12, 2024

CERTIFICATE OF ANALYSIS

Work Order	: YL2401470	Page	: 1 of 5
Client	: Fortune Minerals Limited	Laboratory	: ALS Environmental - Yellowknife
Contact	: Rick Schryer	Account Manager	: Oliver Gregg
Address	: 148 Fullarton Street London ON Canada N6A 5P2	Address	: 314 Old Airport Road, Unit 116 Yellowknife NT Canada X1A 3T3
Telephone	: 306 230 3019	Telephone	: 1 867 445 7143
Project	: ----	Date Samples Received	: 12-Sep-2024 15:40
PO	: FML5055	Date Analysis Commenced	: 12-Sep-2024
C-O-C number	: ----	Issue Date	: 20-Sep-2024 12:40
Sampler	: ----		
Site	: NICO		
Quote number	: YL24-FMIN100-001		
No. of samples received	: 2		
No. of samples analysed	: 2		

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.

Signatories	Position	Laboratory Department
Kim Jensen	Department Manager - Metals	Metals, Burnaby, British Columbia
Monica Ko	Lab Assistant	Inorganics, Burnaby, British Columbia
Oliver Gregg	Client Services Supervisor	External Subcontracting, Yellowknife, Northwest Territories
Rosalie Van Deelen	Laboratory Assistant	Organics, Calgary, Alberta



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
µS/cm	microsiemens per centimetre
CFU/100mL	colony forming units per hundred millilitres
mg/L	milligrams per litre
NTU	nephelometric turbidity units
pH units	pH 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.



Analytical Results

Sub-Matrix: Water (Matrix: Water)			Client sample ID		SNP 5-2	SNP 5-5	----	----	----
Client sampling date / time					12-Sep-2024 09:00	12-Sep-2024 11:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	YL2401470-001	YL2401470-002	-----	-----	-----
					Result	Result	----	----	----
Physical Tests									
Conductivity	----	E100/VA	2.0	µS/cm	341	87.0	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/VA	0.50	mg/L	144	----	----	----	----
pH	----	E108/VA	0.10	pH units	8.19	7.92	----	----	----
Solids, total dissolved [TDS]	----	E162/VA	10	mg/L	----	52	----	----	----
Solids, total suspended [TSS]	----	E160/VA	3.0	mg/L	<3.0	<3.0	----	----	----
Turbidity	----	E121/VA	0.10	NTU	0.81	----	----	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L	0.0395	0.0106	----	----	----
Microbiological Tests									
Coliforms, thermotolerant [fecal]	----	FC-MF/1Y	1.0	CFU/100mL	----	<1.0	----	----	----
Total Metals (Undigested)									
Aluminum, total	7429-90-5	E470/VA	0.0010	mg/L	0.0114	----	----	----	----
Antimony, total	7440-36-0	E470/VA	0.000020	mg/L	0.00313	----	----	----	----
Arsenic, total	7440-38-2	E470/VA	0.000020	mg/L	0.0639	----	----	----	----
Barium, total	7440-39-3	E470/VA	0.000020	mg/L	0.00986	----	----	----	----
Beryllium, total	7440-41-7	E470/VA	0.0000050	mg/L	0.0000191	----	----	----	----
Bismuth, total	7440-69-9	E470/VA	0.0000050	mg/L	0.0000708	----	----	----	----
Boron, total	7440-42-8	E470/VA	0.0050	mg/L	0.0371	----	----	----	----
Cadmium, total	7440-43-9	E470/VA	0.0000050	mg/L	0.0000108	----	----	----	----
Calcium, total	7440-70-2	E470/VA	0.010	mg/L	43.3	----	----	----	----
Cesium, total	7440-46-2	E470/VA	0.0000050	mg/L	0.000102	----	----	----	----
Chromium, total	7440-47-3	E470/VA	0.00010	mg/L	0.00012	----	----	----	----
Cobalt, total	7440-48-4	E470/VA	0.0000050	mg/L	0.000762	----	----	----	----
Copper, total	7440-50-8	E470/VA	0.000050	mg/L	0.00713	----	----	----	----
Gallium, total	7440-55-3	E470/VA	0.000050	mg/L	<0.000050	----	----	----	----
Iron, total	7439-89-6	E470/VA	0.0010	mg/L	0.0897	----	----	----	----
Lanthanum, total	7439-91-0	E470/VA	0.000010	mg/L	0.000036	----	----	----	----
Lead, total	7439-92-1	E470/VA	0.000010	mg/L	0.000466	----	----	----	----
Lithium, total	7439-93-2	E470/VA	0.00050	mg/L	0.00433	----	----	----	----



Analytical Results

Sub-Matrix: Water					Client sample ID	SNP 5-2	SNP 5-5	----	----	----
(Matrix: Water)										
					Client sampling date / time	12-Sep-2024 09:00	12-Sep-2024 11:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	YL2401470-001	YL2401470-002	-----	-----	-----	
					Result	Result	----	----	----	
Total Metals (Undigested)										
Magnesium, total	7439-95-4	E470/VA	0.0040	mg/L	8.80	----	----	----	----	----
Manganese, total	7439-96-5	E470/VA	0.000050	mg/L	0.0105	----	----	----	----	----
Molybdenum, total	7439-98-7	E470/VA	0.000050	mg/L	0.0139	----	----	----	----	----
Nickel, total	7440-02-0	E470/VA	0.000050	mg/L	0.000797	----	----	----	----	----
Niobium, total	7440-03-1	E470/VA	0.00010	mg/L	<0.00010	----	----	----	----	----
Phosphorus, total	7723-14-0	E470/VA	0.050	mg/L	<0.050	----	----	----	----	----
Potassium, total	7440-09-7	E470/VA	0.020	mg/L	2.55	----	----	----	----	----
Rhenium, total	7440-15-5	E470/VA	0.0000050	mg/L	<0.0000050	----	----	----	----	----
Rubidium, total	7440-17-7	E470/VA	0.0000050	mg/L	0.00874	----	----	----	----	----
Selenium, total	7782-49-2	E470/VA	0.000040	mg/L	0.000362	----	----	----	----	----
Silicon, total	7440-21-3	E470/VA	0.050	mg/L	2.96	----	----	----	----	----
Silver, total	7440-22-4	E470/VA	0.0000050	mg/L	<0.0000050	----	----	----	----	----
Sodium, total	7440-23-5	E470/VA	0.020	mg/L	12.6	----	----	----	----	----
Strontium, total	7440-24-6	E470/VA	0.000020	mg/L	0.188	----	----	----	----	----
Sulfur, total	7704-34-9	E470/VA	0.50	mg/L	18.9	----	----	----	----	----
Tantalum, total	7440-25-7	E470/VA	0.00010	mg/L	<0.00010	----	----	----	----	----
Tellurium, total	13494-80-9	E470/VA	0.000020	mg/L	<0.000020	----	----	----	----	----
Thallium, total	7440-28-0	E470/VA	0.0000050	mg/L	0.0000247	----	----	----	----	----
Thorium, total	7440-29-1	E470/VA	0.0000050	mg/L	0.0000316	----	----	----	----	----
Tin, total	7440-31-5	E470/VA	0.000020	mg/L	0.000215	----	----	----	----	----
Titanium, total	7440-32-6	E470/VA	0.000050	mg/L	0.000597	----	----	----	----	----
Tungsten, total	7440-33-7	E470/VA	0.000010	mg/L	0.00140	----	----	----	----	----
Uranium, total	7440-61-1	E470/VA	0.0000010	mg/L	0.0180	----	----	----	----	----
Vanadium, total	7440-62-2	E470/VA	0.000050	mg/L	0.000226	----	----	----	----	----
Yttrium, total	7440-65-5	E470/VA	0.000010	mg/L	0.000222	----	----	----	----	----
Zinc, total	7440-66-6	E470/VA	0.00050	mg/L	0.0260	----	----	----	----	----
Zirconium, total	7440-67-7	E470/VA	0.000010	mg/L	0.000257	----	----	----	----	----
Aggregate Organics										
Biochemical oxygen demand [BOD]	----	BOD5/1Y	2.0	mg/L	----	3.0	----	----	----	----
Oil & grease (gravimetric)	----	E567/CG	5.0	mg/L	<5.0	----	----	----	----	----

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Work Order : YL2401470
Client : Fortune Minerals Limited
Project : ----



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

Please refer to the Accreditation section for an explanation of analyte accreditations.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: YL2401470	Page	: 1 of 7
Client	: Fortune Minerals Limited	Laboratory	: ALS Environmental - Yellowknife
Contact	: Rick Schryer	Account Manager	: Oliver Gregg
Address	: 148 Fullarton Street London ON Canada N6A 5P2	Address	: 314 Old Airport Road, Unit 116 Yellowknife, Northwest Territories Canada X1A 3T3
Telephone	: 306 230 3019	Telephone	: 1 867 445 7143
Project	: ----	Date Samples Received	: 12-Sep-2024 15:40
PO	: FML5055	Issue Date	: 20-Sep-2024 12:44
C-O-C number	: ----		
Sampler	: ----		
Site	: NICO		
Quote number	: YL24-FMIN100-001		
No. of samples received	: 2		
No. of samples analysed	: 2		

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	
Aggregate Organics : Biochemical Oxygen Demand (BOD) 5-day										
HDPE [BOD HT-48h] SNP 5-5	BOD5	12-Sep-2024	----	----	----		13-Sep-2024	48 hrs	22 hrs	✓
Aggregate Organics : Oil & Grease by Gravimetry										
Amber glass (hydrochloric acid) SNP 5-2	E567	12-Sep-2024	18-Sep-2024	28 days	6 days	✓	18-Sep-2024	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SNP 5-2	E298	12-Sep-2024	17-Sep-2024	28 days	5 days	✓	17-Sep-2024	28 days	5 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SNP 5-5	E298	12-Sep-2024	17-Sep-2024	28 days	5 days	✓	17-Sep-2024	28 days	5 days	✓
Microbiological Tests : Fecal Coliforms in Water by MF										
Sterile HDPE (Sodium thiosulphate) SNP 5-5	FC-MF	12-Sep-2024	----	----	----		12-Sep-2024	30 hrs	3 hrs	✓
Physical Tests : Conductivity in Water										
HDPE SNP 5-2	E100	12-Sep-2024	16-Sep-2024	28 days	4 days	✓	16-Sep-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE SNP 5-5	E100	12-Sep-2024	18-Sep-2024	28 days	6 days	✓	19-Sep-2024	28 days	7 days	✓



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

Analyte Group : Analytical Method 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 : pH by Meter										
HDPE SNP 5-2	E108	12-Sep-2024	16-Sep-2024	0.25 hrs	103 hrs	✖ EHTR-FM	16-Sep-2024	0.25 hrs	107 hrs	✖ EHTR-FM
Physical Tests : pH by Meter										
HDPE SNP 5-5	E108	12-Sep-2024	18-Sep-2024	0.25 hrs	144 hrs	✖ EHTR-FM	19-Sep-2024	0.25 hrs	167 hrs	✖ EHTR-FM
Physical Tests : TDS by Gravimetry										
HDPE SNP 5-5	E162	12-Sep-2024	----	----	----		19-Sep-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry										
HDPE SNP 5-2	E160	12-Sep-2024	----	----	----		18-Sep-2024	7 days	6 days	✓
Physical Tests : TSS by Gravimetry										
HDPE SNP 5-5	E160	12-Sep-2024	----	----	----		19-Sep-2024	7 days	7 days	✓
Physical Tests : Turbidity by Nephelometry										
HDPE SNP 5-2	E121	12-Sep-2024	----	----	----		19-Sep-2024	3 days	7 days	✖ EHT
Total Metals (Undigested) : Total Metals (undigested) in Water by CRC ICPMS (Pristine Samples)										
Pre-cleaned HDPE - total (lab preserved) SNP 5-2	E470	12-Sep-2024	18-Sep-2024	180 days	6 days	✓	19-Sep-2024	180 days	7 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	Method	QC Lot #	Count		Frequency (%)		
Analytical Methods			QC	Regular	Actual	Expected	Evaluation
Laboratory Duplicates (DUP)							
Ammonia by Fluorescence	E298	1654700	1	20	5.0	5.0	✓
Conductivity in Water	E100	1657943	2	28	7.1	5.0	✓
pH by Meter	E108	1654184	2	39	5.1	5.0	✓
TDS by Gravimetry	E162	1659710	1	6	16.6	5.0	✓
Total Metals (undigested) in Water by CRC ICPMS (Pristine Samples)	E470	1656740	1	10	10.0	5.0	✓
TSS by Gravimetry	E160	1659711	2	32	6.2	5.0	✓
Turbidity by Nephelometry	E121	1660088	1	13	7.6	5.0	✓
Laboratory Control Samples (LCS)							
Ammonia by Fluorescence	E298	1654700	1	20	5.0	5.0	✓
Conductivity in Water	E100	1657943	2	28	7.1	5.0	✓
Oil & Grease by Gravimetry	E567	1657431	1	7	14.2	5.0	✓
pH by Meter	E108	1654184	2	39	5.1	5.0	✓
TDS by Gravimetry	E162	1659710	1	6	16.6	5.0	✓
Total Metals (undigested) in Water by CRC ICPMS (Pristine Samples)	E470	1656740	1	10	10.0	5.0	✓
TSS by Gravimetry	E160	1659711	2	32	6.2	5.0	✓
Turbidity by Nephelometry	E121	1660088	1	13	7.6	5.0	✓
Method Blanks (MB)							
Ammonia by Fluorescence	E298	1654700	1	20	5.0	5.0	✓
Conductivity in Water	E100	1657943	2	28	7.1	5.0	✓
Oil & Grease by Gravimetry	E567	1657431	1	7	14.2	5.0	✓
TDS by Gravimetry	E162	1659710	1	6	16.6	5.0	✓
Total Metals (undigested) in Water by CRC ICPMS (Pristine Samples)	E470	1656740	1	10	10.0	5.0	✓
TSS by Gravimetry	E160	1659711	2	32	6.2	5.0	✓
Turbidity by Nephelometry	E121	1660088	1	13	7.6	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1654700	1	20	5.0	5.0	✓
Total Metals (undigested) in Water by CRC ICPMS (Pristine Samples)	E470	1656740	1	10	10.0	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
Biochemical Oxygen Demand (BOD) 5-day	BOD5 Taiga Environmental Laboratory - 4601 - 52nd Avenue P.O. BOX 1500 Yellowknife Northwest Territories Canada X1A 2R3	Water	SM5210B	Sample was diluted, seeded, and incubated at specified temperature for 5 days. Dissolved oxygen is measured initially and after incubation, and the BOD is computed from the difference between initial and final DO.
Conductivity in Water	E100 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 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.
Turbidity by Nephelometry	E121 ALS Environmental - Vancouver	Water	APHA 2130 B (mod)	Turbidity is measured by the nephelometric method, by measuring the intensity of light scatter under defined conditions.
TSS by Gravimetry	E160 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 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.
Ammonia by Fluorescence	E298 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)



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Total Metals (undigested) in Water by CRC ICPMS (Pristine Samples)	E470 ALS Environmental - Vancouver	Water	EPA 6020B (mod)	Total metals in water are analyzed by Collision/Reaction Cell ICPMS. The detection limits provided can only be met for undigested samples. This procedure is intended for colorless, non-turbid, acid-preserved water samples (i.e. pristine water samples), having turbidity < 1 NTU and no odor. Where turbidity exceeds 1 NTU, and/or the sample is colored and has an odor, results may be biased low compared to true Total Metals concentrations. ALS recommends that turbidity analysis be requested on samples submitted for this test to aid with interpretation of results. Where turbidity is <1NTU, undigested metals are equivalent to total metals concentrations.
Oil & Grease by Gravimetry	E567 ALS Environmental - Calgary	Water	BC MOE Lab Manual (Oil & Grease) (mod)	The entire water sample is extracted with hexane and the extract is evaporated to dryness. The residue is then weighed to determine Oil and Grease.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Vancouver	Water	APHA 2340B	"Hardness (as CaCO ₃), from total Ca/Mg" is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO ₃ 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.
Fecal Coliforms in Water by MF	FC-MF Taiga Environmental Laboratory - 4601 - 52nd Avenue P.O. BOX 1500 Yellowknife Northwest Territories Canada X1A 2R3	Water	APHA 9222D	See attached report.
Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Vancouver	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Oil & Grease Extraction for Gravimetry	EP567 ALS Environmental - Calgary	Water	BC MOE Lab Manual (Oil & Grease) (mod)	The entire water sample is extracted with hexane by liquid-liquid extraction.

QUALITY CONTROL REPORT

Work Order	: YL2401470	Page	: 1 of 11
Client	: Fortune Minerals Limited	Laboratory	: ALS Environmental - Yellowknife
Contact	: Rick Schryer	Account Manager	: Oliver Gregg
Address	: 148 Fullarton Street London ON Canada N6A 5P2	Address	: 314 Old Airport Road, Unit 116 Yellowknife, Northwest Territories Canada X1A 3T3
Telephone	: 306 230 3019	Telephone	: 1 867 445 7143
Project	: ----	Date Samples Received	: 12-Sep-2024 15:40
PO	: FML5055	Date Analysis Commenced	: 12-Sep-2024
C-O-C number	: ----	Issue Date	: 20-Sep-2024 12:37
Sampler	: ----		
Site	: NICO		
Quote number	: YL24-FMIN100-001		
No. of samples received	: 2		
No. of samples analysed	: 2		

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
Kim Jensen	Department Manager - Metals	Vancouver Metals, Burnaby, British Columbia
Monica Ko	Lab Assistant	Vancouver Inorganics, Burnaby, British Columbia
Oliver Gregg	Client Services Supervisor	Taiga Environmental Laboratory External Subcontracting, Yellowknife, Northwest Territories
Rosalie Van Deelen	Laboratory Assistant	Calgary Organics, Calgary, Alberta



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: 1654184)											
VA24C4184-001	Anonymous	pH	----	E108	0.10	pH units	8.09	8.12	0.370%	4%	----
Physical Tests (QC Lot: 1654185)											
VA24C4184-001	Anonymous	Conductivity	----	E100	2.0	µS/cm	705	699	0.855%	10%	----
Physical Tests (QC Lot: 1657941)											
FJ2402774-003	Anonymous	pH	----	E108	0.10	pH units	8.14	8.12	0.246%	4%	----
Physical Tests (QC Lot: 1657943)											
FJ2402774-003	Anonymous	Conductivity	----	E100	2.0	µS/cm	625	630	0.797%	10%	----
Physical Tests (QC Lot: 1658478)											
VA24C4098-003	Anonymous	Solids, total suspended [TSS]	----	E160	3.0	mg/L	<3.0	<3.0	0	Diff <2x LOR	----
Physical Tests (QC Lot: 1659710)											
VA24C4338-003	Anonymous	Solids, total dissolved [TDS]	----	E162	10	mg/L	376	374	0.667%	20%	----
Physical Tests (QC Lot: 1659711)											
VA24C4338-002	Anonymous	Solids, total suspended [TSS]	----	E160	3.0	mg/L	<3.0	<3.0	0	Diff <2x LOR	----
Physical Tests (QC Lot: 1660088)											
VA24C4390-001	Anonymous	Turbidity	----	E121	0.10	NTU	8.41	8.62	2.47%	15%	----
Anions and Nutrients (QC Lot: 1654700)											
FJ2402738-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.312	0.316	1.17%	20%	----
Total Metals (Undigested) (QC Lot: 1656740)											
VA24C4260-001	Anonymous	Aluminum, total	7429-90-5	E470	0.0010	mg/L	0.386	0.402	4.02%	20%	----
		Antimony, total	7440-36-0	E470	0.000020	mg/L	0.000023	0.000024	0.0000009	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E470	0.000020	mg/L	0.000573	0.000566	1.28%	20%	----
		Barium, total	7440-39-3	E470	0.000020	mg/L	0.00510	0.00528	3.34%	20%	----
		Beryllium, total	7440-41-7	E470	0.0000100	mg/L	0.0000197	0.0000180	0.0000017	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E470	0.0000050	mg/L	0.0000463	0.0000476	0.0000013	Diff <2x LOR	----
		Boron, total	7440-42-8	E470	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E470	0.0000050	mg/L	0.0000157	0.0000190	0.0000033	Diff <2x LOR	----
		Calcium, total	7440-70-2	E470	0.010	mg/L	9.71	9.93	2.26%	20%	----
		Cesium, total	7440-46-2	E470	0.0000050	mg/L	0.000134	0.000140	4.37%	20%	----
		Chromium, total	7440-47-3	E470	0.00010	mg/L	0.00026	0.00026	0.000008	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E470	0.0000050	mg/L	0.000306	0.000318	3.65%	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
Total Metals (Undigested) (QC Lot: 1656740) - continued											
VA24C4260-001	Anonymous	Copper, total	7440-50-8	E470	0.000050	mg/L	0.00244	0.00252	3.24%	20%	----
		Gallium, total	7440-55-3	E470	0.000050	mg/L	0.000124	0.000130	0.000006	Diff <2x LOR	----
		Iron, total	7439-89-6	E470	0.0010	mg/L	0.449	0.463	3.02%	20%	----
		Lanthanum, total	7439-91-0	E470	0.000010	mg/L	0.000132	0.000134	1.54%	20%	----
		Lead, total	7439-92-1	E470	0.000010	mg/L	0.00118	0.00121	2.59%	20%	----
		Lithium, total	7439-93-2	E470	0.000050	mg/L	0.00076	0.00078	0.00001	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E470	0.0100	mg/L	0.465	0.483	3.65%	20%	----
		Manganese, total	7439-96-5	E470	0.000050	mg/L	0.0102	0.0104	2.36%	20%	----
		Molybdenum, total	7439-98-7	E470	0.000050	mg/L	0.0266	0.0274	2.87%	20%	----
		Nickel, total	7440-02-0	E470	0.000050	mg/L	0.000222	0.000240	0.000018	Diff <2x LOR	----
		Niobium, total	7440-03-1	E470	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E470	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E470	0.020	mg/L	0.448	0.468	4.33%	20%	----
		Rhenium, total	7440-15-5	E470	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Rubidium, total	7440-17-7	E470	0.0000050	mg/L	0.00170	0.00176	3.22%	20%	----
		Selenium, total	7782-49-2	E470	0.000040	mg/L	0.000352	0.000362	0.000009	Diff <2x LOR	----
		Silicon, total	7440-21-3	E470	0.050	mg/L	2.45	2.46	0.309%	20%	----
		Silver, total	7440-22-4	E470	0.0000050	mg/L	0.0000103	0.0000113	0.0000010	Diff <2x LOR	----
		Sodium, total	7440-23-5	E470	0.020	mg/L	0.924	0.955	3.29%	20%	----
		Strontium, total	7440-24-6	E470	0.000050	mg/L	0.0457	0.0470	2.82%	20%	----
		Sulfur, total	7704-34-9	E470	0.50	mg/L	4.12	4.19	0.06	Diff <2x LOR	----
		Tantalum, total	7440-25-7	E470	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E470	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E470	0.0000050	mg/L	0.0000200	0.0000213	0.0000013	Diff <2x LOR	----
		Thorium, total	7440-29-1	E470	0.0000050	mg/L	0.000152	0.000158	4.24%	20%	----
		Tin, total	7440-31-5	E470	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E470	0.000050	mg/L	0.0157	0.0157	0.190%	20%	----
		Tungsten, total	7440-33-7	E470	0.000010	mg/L	0.000828	0.000853	2.97%	20%	----
		Uranium, total	7440-61-1	E470	0.0000020	mg/L	0.000539	0.000530	1.56%	20%	----
		Vanadium, total	7440-62-2	E470	0.000200	mg/L	0.00123	0.00123	0.000003	Diff <2x LOR	----
		Yttrium, total	7440-65-5	E470	0.000010	mg/L	0.000217	0.000222	2.52%	20%	----
		Zinc, total	7440-66-6	E470	0.000050	mg/L	0.00244	0.00250	0.00005	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E470	0.000010	mg/L	0.000026	0.000019	0.000007	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
Physical Tests (QCLot: 1654185)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1657943)						
Conductivity	----	E100	1	µS/cm	1.3	----
Physical Tests (QCLot: 1658478)						
Solids, total suspended [TSS]	----	E160	3	mg/L	<3.0	----
Physical Tests (QCLot: 1659710)						
Solids, total dissolved [TDS]	----	E162	10	mg/L	<10	----
Physical Tests (QCLot: 1659711)						
Solids, total suspended [TSS]	----	E160	3	mg/L	<3.0	----
Physical Tests (QCLot: 1660088)						
Turbidity	----	E121	0.1	NTU	<0.10	----
Anions and Nutrients (QCLot: 1654700)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Total Metals (Undigested) (QCLot: 1656740)						
Aluminum, total	7429-90-5	E470	0.001	mg/L	<0.0010	----
Antimony, total	7440-36-0	E470	0.00002	mg/L	<0.000020	----
Arsenic, total	7440-38-2	E470	0.00002	mg/L	<0.000020	----
Barium, total	7440-39-3	E470	0.00002	mg/L	<0.000020	----
Beryllium, total	7440-41-7	E470	0.000005	mg/L	<0.0000050	----
Bismuth, total	7440-69-9	E470	0.000005	mg/L	<0.0000050	----
Boron, total	7440-42-8	E470	0.005	mg/L	<0.0050	----
Cadmium, total	7440-43-9	E470	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E470	0.01	mg/L	<0.010	----
Cesium, total	7440-46-2	E470	0.000005	mg/L	<0.0000050	----
Chromium, total	7440-47-3	E470	0.0001	mg/L	<0.00010	----
Cobalt, total	7440-48-4	E470	0.000005	mg/L	<0.0000050	----
Copper, total	7440-50-8	E470	0.00005	mg/L	<0.000050	----
Gallium, total	7440-55-3	E470	0.00005	mg/L	<0.000050	----
Iron, total	7439-89-6	E470	0.001	mg/L	<0.0010	----
Lanthanum, total	7439-91-0	E470	0.00001	mg/L	<0.000010	----
Lead, total	7439-92-1	E470	0.00001	mg/L	<0.000010	----



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (Undigested) (QCLot: 1656740) - continued						
Lithium, total	7439-93-2	E470	0.0005	mg/L	<0.00050	----
Magnesium, total	7439-95-4	E470	0.004	mg/L	<0.0040	----
Manganese, total	7439-96-5	E470	0.00005	mg/L	<0.000050	----
Molybdenum, total	7439-98-7	E470	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E470	0.00005	mg/L	<0.000050	----
Niobium, total	7440-03-1	E470	0.0001	mg/L	<0.00010	----
Phosphorus, total	7723-14-0	E470	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E470	0.02	mg/L	<0.020	----
Rhenium, total	7440-15-5	E470	0.000005	mg/L	<0.0000050	----
Rubidium, total	7440-17-7	E470	0.000005	mg/L	<0.0000050	----
Selenium, total	7782-49-2	E470	0.00004	mg/L	<0.000040	----
Silicon, total	7440-21-3	E470	0.05	mg/L	<0.050	----
Silver, total	7440-22-4	E470	0.000005	mg/L	<0.0000050	----
Sodium, total	7440-23-5	E470	0.02	mg/L	<0.020	----
Strontium, total	7440-24-6	E470	0.00002	mg/L	<0.000020	----
Sulfur, total	7704-34-9	E470	0.5	mg/L	<0.50	----
Tantalum, total	7440-25-7	E470	0.0001	mg/L	<0.00010	----
Tellurium, total	13494-80-9	E470	0.00002	mg/L	<0.000020	----
Thallium, total	7440-28-0	E470	0.000005	mg/L	<0.0000050	----
Thorium, total	7440-29-1	E470	0.000005	mg/L	<0.0000050	----
Tin, total	7440-31-5	E470	0.00002	mg/L	<0.000020	----
Titanium, total	7440-32-6	E470	0.00005	mg/L	<0.000050	----
Tungsten, total	7440-33-7	E470	0.00001	mg/L	<0.000010	----
Uranium, total	7440-61-1	E470	0.000001	mg/L	<0.0000010	----
Vanadium, total	7440-62-2	E470	0.00005	mg/L	<0.000050	----
Yttrium, total	7440-65-5	E470	0.00001	mg/L	<0.000010	----
Zinc, total	7440-66-6	E470	0.0005	mg/L	<0.00050	----
Zirconium, total	7440-67-7	E470	0.00001	mg/L	<0.000010	----
Aggregate Organics (QCLot: 1657431)						
Oil & grease (gravimetric)	----	E567	5	mg/L	<5.0	----



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: 1654184)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1654185)									
Conductivity	----	E100	1	µS/cm	147 µS/cm	96.2	90.0	110	----
Physical Tests (QCLot: 1657941)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1657943)									
Conductivity	----	E100	1	µS/cm	147 µS/cm	98.2	90.0	110	----
Physical Tests (QCLot: 1658478)									
Solids, total suspended [TSS]	----	E160	3	mg/L	150 mg/L	91.3	85.0	115	----
Physical Tests (QCLot: 1659710)									
Solids, total dissolved [TDS]	----	E162	10	mg/L	1000 mg/L	107	85.0	115	----
Physical Tests (QCLot: 1659711)									
Solids, total suspended [TSS]	----	E160	3	mg/L	150 mg/L	96.7	85.0	115	----
Physical Tests (QCLot: 1660088)									
Turbidity	----	E121	0.1	NTU	200 NTU	97.5	85.0	115	----
Anions and Nutrients (QCLot: 1654700)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	98.0	85.0	115	----
Total Metals (Undigested) (QCLot: 1656740)									
Aluminum, total	7429-90-5	E470	0.001	mg/L	2 mg/L	93.9	80.0	120	----
Antimony, total	7440-36-0	E470	0.00002	mg/L	1 mg/L	98.8	80.0	120	----
Arsenic, total	7440-38-2	E470	0.00002	mg/L	1 mg/L	105	80.0	120	----
Barium, total	7440-39-3	E470	0.00002	mg/L	0.25 mg/L	98.7	80.0	120	----
Beryllium, total	7440-41-7	E470	0.000005	mg/L	0.1 mg/L	94.6	80.0	120	----
Bismuth, total	7440-69-9	E470	0.000005	mg/L	1 mg/L	98.3	80.0	120	----
Boron, total	7440-42-8	E470	0.005	mg/L	1 mg/L	92.7	80.0	120	----
Cadmium, total	7440-43-9	E470	0.000005	mg/L	0.1 mg/L	98.1	80.0	120	----
Calcium, total	7440-70-2	E470	0.01	mg/L	50 mg/L	93.3	80.0	120	----
Cesium, total	7440-46-2	E470	0.000005	mg/L	0.05 mg/L	99.8	80.0	120	----
Chromium, total	7440-47-3	E470	0.0001	mg/L	0.25 mg/L	93.6	80.0	120	----
Cobalt, total	7440-48-4	E470	0.000005	mg/L	0.25 mg/L	93.0	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 (Undigested) (QCLot: 1656740) - continued									
Copper, total	7440-50-8	E470	0.00005	mg/L	0.25 mg/L	93.3	80.0	120	----
Gallium, total	7440-55-3	E470	0.00005	mg/L	0.25 mg/L	100	80.0	120	----
Iron, total	7439-89-6	E470	0.001	mg/L	1 mg/L	96.0	80.0	120	----
Lanthanum, total	7439-91-0	E470	0.00001	mg/L	0.1 mg/L	103	80.0	120	----
Lead, total	7439-92-1	E470	0.00001	mg/L	0.5 mg/L	98.1	80.0	120	----
Lithium, total	7439-93-2	E470	0.0005	mg/L	0.25 mg/L	94.6	80.0	120	----
Magnesium, total	7439-95-4	E470	0.004	mg/L	50 mg/L	91.6	80.0	120	----
Manganese, total	7439-96-5	E470	0.00005	mg/L	0.25 mg/L	93.3	80.0	120	----
Molybdenum, total	7439-98-7	E470	0.00005	mg/L	0.25 mg/L	94.4	80.0	120	----
Nickel, total	7440-02-0	E470	0.00005	mg/L	0.5 mg/L	95.9	80.0	120	----
Niobium, total	7440-03-1	E470	0.0001	mg/L	0.05 mg/L	103	80.0	120	----
Phosphorus, total	7723-14-0	E470	0.05	mg/L	10 mg/L	103	80.0	120	----
Potassium, total	7440-09-7	E470	0.02	mg/L	50 mg/L	93.7	80.0	120	----
Rhenium, total	7440-15-5	E470	0.000005	mg/L	0.1 mg/L	102	80.0	120	----
Rubidium, total	7440-17-7	E470	0.000005	mg/L	0.1 mg/L	92.0	80.0	120	----
Selenium, total	7782-49-2	E470	0.00004	mg/L	1 mg/L	98.6	80.0	120	----
Silicon, total	7440-21-3	E470	0.05	mg/L	10 mg/L	108	80.0	120	----
Silver, total	7440-22-4	E470	0.000005	mg/L	0.1 mg/L	90.0	80.0	120	----
Sodium, total	7440-23-5	E470	0.02	mg/L	50 mg/L	92.5	80.0	120	----
Strontium, total	7440-24-6	E470	0.00002	mg/L	0.25 mg/L	92.5	80.0	120	----
Sulfur, total	7704-34-9	E470	0.5	mg/L	50 mg/L	105	80.0	120	----
Tantalum, total	7440-25-7	E470	0.0001	mg/L	0.1 mg/L	102	80.0	120	----
Tellurium, total	13494-80-9	E470	0.00002	mg/L	0.1 mg/L	96.9	80.0	120	----
Thallium, total	7440-28-0	E470	0.000005	mg/L	1 mg/L	98.4	80.0	120	----
Thorium, total	7440-29-1	E470	0.000005	mg/L	0.1 mg/L	101	80.0	120	----
Tin, total	7440-31-5	E470	0.00002	mg/L	0.5 mg/L	99.9	80.0	120	----
Titanium, total	7440-32-6	E470	0.00005	mg/L	0.25 mg/L	96.0	80.0	120	----
Tungsten, total	7440-33-7	E470	0.00001	mg/L	0.1 mg/L	100	80.0	120	----
Uranium, total	7440-61-1	E470	0.000001	mg/L	0.005 mg/L	102	80.0	120	----
Vanadium, total	7440-62-2	E470	0.00005	mg/L	0.5 mg/L	92.9	80.0	120	----
Yttrium, total	7440-65-5	E470	0.00001	mg/L	0.1 mg/L	102	80.0	120	----
Zinc, total	7440-66-6	E470	0.0005	mg/L	0.5 mg/L	92.6	80.0	120	----
Zirconium, total	7440-67-7	E470	0.00001	mg/L	0.1 mg/L	96.9	80.0	120	----
Aggregate Organics (QCLot: 1657431)									
Oil & grease (gravimetric)	----	E567	5	mg/L	100 mg/L	114	70.0	130	----



Sub-Matrix: Water					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Analyte	CAS Number	Method	LOR	Unit					



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 (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1654700)										
FJ2402760-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	ND mg/L	----	ND	75.0	125	----
Total Metals (Undigested) (QCLot: 1656740)										
VA24C4264-001	Anonymous	Aluminum, total	7429-90-5	E470	0.181 mg/L	0.2 mg/L	90.5	70.0	130	----
		Antimony, total	7440-36-0	E470	0.0188 mg/L	0.02 mg/L	94.2	70.0	130	----
		Arsenic, total	7440-38-2	E470	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Barium, total	7440-39-3	E470	0.0191 mg/L	0.02 mg/L	95.5	70.0	130	----
		Beryllium, total	7440-41-7	E470	0.0386 mg/L	0.04 mg/L	96.4	70.0	130	----
		Bismuth, total	7440-69-9	E470	0.00856 mg/L	0.01 mg/L	85.6	70.0	130	----
		Boron, total	7440-42-8	E470	0.0913 mg/L	0.1 mg/L	91.3	70.0	130	----
		Cadmium, total	7440-43-9	E470	0.00394 mg/L	0.004 mg/L	98.5	70.0	130	----
		Calcium, total	7440-70-2	E470	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E470	0.00961 mg/L	0.01 mg/L	96.1	70.0	130	----
		Chromium, total	7440-47-3	E470	0.0364 mg/L	0.04 mg/L	91.0	70.0	130	----
		Cobalt, total	7440-48-4	E470	0.0182 mg/L	0.02 mg/L	91.2	70.0	130	----
		Copper, total	7440-50-8	E470	0.0183 mg/L	0.02 mg/L	91.6	70.0	130	----
		Gallium, total	7440-55-3	E470	0.00257 mg/L	0.002 mg/L	103	70.0	130	----
		Iron, total	7439-89-6	E470	1.87 mg/L	2 mg/L	93.6	70.0	130	----
		Lanthanum, total	7439-91-0	E470	0.00260 mg/L	0.002 mg/L	104	70.0	130	----
		Lead, total	7439-92-1	E470	0.0191 mg/L	0.02 mg/L	95.5	70.0	130	----
		Lithium, total	7439-93-2	E470	0.0937 mg/L	0.1 mg/L	93.7	70.0	130	----
		Magnesium, total	7439-95-4	E470	0.864 mg/L	1 mg/L	86.4	70.0	130	----
		Manganese, total	7439-96-5	E470	0.0184 mg/L	0.02 mg/L	91.8	70.0	130	----
		Molybdenum, total	7439-98-7	E470	0.0180 mg/L	0.02 mg/L	90.0	70.0	130	----
		Nickel, total	7440-02-0	E470	0.0379 mg/L	0.04 mg/L	94.8	70.0	130	----
		Niobium, total	7440-03-1	E470	0.00262 mg/L	0.002 mg/L	105	70.0	130	----
		Phosphorus, total	7723-14-0	E470	10.0 mg/L	10 mg/L	100	70.0	130	----
		Potassium, total	7440-09-7	E470	3.65 mg/L	4 mg/L	91.2	70.0	130	----
		Rhenium, total	7440-15-5	E470	0.00254 mg/L	0.002 mg/L	102	70.0	130	----
		Rubidium, total	7440-17-7	E470	0.0180 mg/L	0.02 mg/L	89.9	70.0	130	----
		Selenium, total	7782-49-2	E470	0.0424 mg/L	0.04 mg/L	106	70.0	130	----
		Silicon, total	7440-21-3	E470	9.39 mg/L	10 mg/L	93.9	70.0	130	----
		Silver, total	7440-22-4	E470	0.00375 mg/L	0.004 mg/L	93.8	70.0	130	----
		Sodium, total	7440-23-5	E470	1.77 mg/L	2 mg/L	88.4	70.0	130	----
		Strontium, total	7440-24-6	E470	ND mg/L	----	ND	70.0	130	----
Sulfur, total	7704-34-9	E470	19.8 mg/L	20 mg/L	99.2	70.0	130	----		
Tantalum, total	7440-25-7	E470	0.00248 mg/L	0.002 mg/L	99.2	70.0	130	----		
Tellurium, total	13494-80-9	E470	0.0420 mg/L	0.04 mg/L	105	70.0	130	----		
Thallium, total	7440-28-0	E470	0.00378 mg/L	0.004 mg/L	94.4	70.0	130	----		
Thorium, total	7440-29-1	E470	0.0197 mg/L	0.02 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 (Undigested) (QCLot: 1656740) - continued										
VA24C4264-001	Anonymous	Tin, total	7440-31-5	E470	0.0190 mg/L	0.02 mg/L	95.2	70.0	130	----
		Titanium, total	7440-32-6	E470	0.0376 mg/L	0.04 mg/L	93.9	70.0	130	----
		Tungsten, total	7440-33-7	E470	0.0192 mg/L	0.02 mg/L	96.2	70.0	130	----
		Uranium, total	7440-61-1	E470	0.00395 mg/L	0.004 mg/L	98.8	70.0	130	----
		Vanadium, total	7440-62-2	E470	0.0907 mg/L	0.1 mg/L	90.7	70.0	130	----
		Yttrium, total	7440-65-5	E470	0.00261 mg/L	0.002 mg/L	104	70.0	130	----
		Zinc, total	7440-66-6	E470	0.397 mg/L	0.4 mg/L	99.2	70.0	130	----
		Zirconium, total	7440-67-7	E470	0.0383 mg/L	0.04 mg/L	95.7	70.0	130	----

