



**Eagle Mountain - Woodfibre Gas Pipeline Project
Waste Discharge Permit PE-110163 Report**

Reporting Week	June 17 th to June 23 rd , 2024
Report #	13
Page	1 of 7

Eagle Mountain - Woodfibre Gas Pipeline Project

BCER Waste Discharge Permit Weekly Report



**Eagle Mountain - Woodfibre Gas Pipeline Project
Waste Discharge Permit PE-110163 Report**

Reporting Week	June 17 th to June 23 rd , 2024
Report #	13
Page	2 of 7

Contents


Preamble.....	3
Introduction	3
Sampling Methodology.....	3
Summary-BC Rail Site	4
Site Activities	4
Point of Discharge from Water Treatment System Monitoring	4
Exceedances	5
Receiving Environment Monitoring.....	5
Receiving Environment Monitoring Details.....	5
Summary-Woodfibre	6
Site Activities	6
Point of Discharge from Water Treatment System Monitoring	6
Exceedance details	6
Receiving Environment Monitoring.....	6
Receiving Environment Monitoring Details.....	7

Appendix A: BC Rail Point of Discharge from Water Treatment System Documentation

Appendix B: BC Rail Receiving Environment Documentation

Appendix C: Woodfibre Point of Discharge from Water Treatment System Documentation

Appendix D: Woodfibre Receiving Environment Documentation

 Eagle Mountain - Woodfibre Gas Pipeline Project Waste Discharge Permit PE-110163 Report	Reporting Week	June 17 th to June 23 rd , 2024
	Report #	13
	Page	3 of 7

Preamble

This weekly report for the British Columbia Energy Regulator (BCER) Waste Discharge Permit (BCER number PE-110163) for the FortisBC Eagle Mountain – Woodfibre Gas Pipeline (EGP) Project includes the results of water quality monitoring and sampling of the receiving environment (upstream and downstream) and point of discharge.

FortisBC has retained Triton Environmental Consultants Ltd. as the Qualified Professional to implement and oversee the monitoring and sampling program in the receiving environments. The data represented below, including laboratory reported exceedances, represent background conditions from the receiving environment sampling as shown on the Waste Discharge Permit.

Introduction

The results provided in this document are submitted to BC Energy Regulator (BCER) by FortisBC as per the requirements listed in the Waste Discharge Permit PE-110163 Section 4.2:

The Permittee shall summarize the results of the discharge and receiving environment compliance sampling and monitoring program in a report that shall be submitted weekly over the term of this permit. The sampling and monitoring results shall be suitably tabulated and include comparison to the respective British Columbia Approved and Working Water Quality Guidelines for Freshwater & Marine Aquatic Life, as published by the Ministry of Environment & Climate Change Strategy. Any exceedance of regulatory guidelines shall be clearly highlighted, and any missed sampling events/missing data shall be identified with an explanation provided. Reporting frequency may be reduced upon a history of compliance and by written confirmation from the BCER. These reports shall be submitted to Waste.Management@bc-er.ca. A copy of the reports shall be provided to each First Nation consulted with regarding the subject permit, and also made publicly available on the FortisBC Eagle Mountain-Woodfibre Gas Pipeline Project | Talking Energy webpage.

Sampling Methodology

The monitoring and sampling has been carried out in accordance with the procedures described in the most recent edition of the “British Columbia Field Sampling Manual” using field equipment and lab samples to meet daily and real time requirements for the Waste Discharge Permit.

At the receiving environments, real time and daily readings are being monitored at the same time with one piece of equipment, allowing all the daily readings real time. Visible sheen will be monitored with visual inspections during times of discharge or sampling.

At the point of discharge from the WTP, the parameters are being monitored using field equipment and sondes/real time meters make and models to be confirmed by the contractor. Table 1 and Table 2 below show how each parameter is being monitored.


 Eagle Mountain - Woodfibre Gas Pipeline Project Waste Discharge Permit PE-110163 Report	Reporting Week	June 17 th to June 23 rd , 2024
	Report #	13
	Page	4 of 7

Table 1. Monitor Details for the Point of Discharge from the Water Treatment System-BC Rail and Woodfibre

Permit Frequency	Parameters	Details
Daily	Visible Sheen	In field inspection
Daily (or per batch)	DO	Monitoring using YSI ProDSS
	ORP	Monitoring using YSI ProDSS
	Salinity	Monitoring using YSI ProDSS
Real Time (or per batch)	pH	Monitoring using GF Dryloc pH Series NPT
	Temperature	Monitoring using LevelPro PT100 Temperature and Signet 2350 Temp sensor
	NTU	Monitoring using Observator NEP9504GPI
	Electrical Conductivity	Monitoring using ProCon C450
Weekly (or per batch) Lab Samples	List prescribed in permit	Lab samples

Table 2. Monitor Details for the Receiving Environment (upstream and downstream)-BC Rail and Woodfibre

Permit Frequency	Parameters	Details
Daily	Visible Sheen	In field inspection
Daily	DO	Monitoring using Sonde- AquaTROLL 600 datalogger
	ORP	Monitoring using Sonde- AquaTROLL 600 datalogger
	Salinity	Monitoring using Sonde- AquaTROLL 600 datalogger
Real Time	pH	Monitoring using Sonde- AquaTROLL 600 datalogger
	Temperature	Monitoring using Sonde- AquaTROLL 600 datalogger
	NTU	Monitoring using Sonde- AquaTROLL 600 datalogger
	Electrical Conductivity	Monitoring using Sonde- AquaTROLL 600 datalogger
Weekly Lab Samples	List prescribed in permit	Lab samples

Summary-BC Rail Site

Site Activities


- No discharges during this reporting period.

Point of Discharge from Water Treatment System Monitoring

Table 3 below includes information on water quality and lab sampling during discharges. Appendix A includes a full set of lab results with real time/field samples from discharges.

Table 3: Discharge from Water Treatment System Information

Location	Date of Discharge	Date of Lab Sample (for the discharge)	Real Time Monitored	Field Samples Taken	Discharge Rate (batch)	Discharge Volume (batch)	Results
----------	-------------------	--	---------------------	---------------------	------------------------	--------------------------	---------

 Eagle Mountain - Woodfibre Gas Pipeline Project Waste Discharge Permit PE-110163 Report	Reporting Week	June 17 th to June 23 rd , 2024
	Report #	13
	Page	5 of 7

BC Rail	No Discharge during this time period.
---------	---------------------------------------

*Max discharge is 515 m3/day

Exceedances

No exceedances this reporting period.

Receiving Environment Monitoring

The receiving environment is being monitored as outlined in the permit.

Table 4: Upstream Monitoring Information

Location	Date of Lab Sample	Real Time Monitored	Field Samples Taken	Results
Squamish River Upstream	2024-06-17	Yes *	N/A	Full set of lab sample results, photo and documentation are provided in Appendix B.


Table 5: Downstream Monitoring Information

	Date of Lab Sample	Real Time Monitored	Field Samples Taken	Results
Squamish River Downstream	2023-06-17	Yes *	N/A	Full set of lab sample results, photo and documentation are provided in Appendix B.

* Sondes set up to log temperature, specific conductivity, salinity (in PSU), pH, ORP, DO (mg/L), and turbidity (NTU) at 10 minute intervals.

Receiving Environment Monitoring Details

- Visual sheen checks conducted for days of discharge.
- All receiving environment lab results are in Appendix B.
- Any recorded exceedances in the laboratory and field samples collected from the receiving environment (upstream and downstream) are indicative of the existing background water quality in the Squamish River, and are not related to the EGP Project activities.

 Eagle Mountain - Woodfibre Gas Pipeline Project Waste Discharge Permit PE-110163 Report	Reporting Week	June 17 th to June 23 rd , 2024
	Report #	13
	Page	6 of 7

Summary-Woodfibre

Site Activities

- Woodfibre has continued the 7 days of active discharge operations, this report includes days 2-7 of daily sampling post phase change as per the Permit requirements.

Point of Discharge from Water Treatment System Monitoring

Table 3 below includes information on the continuous discharge water quality and lab sampling. Appendix C includes a full set of lab results with real time/field samples from discharges discharge.

Table 3: Day 2-7 Discharges from Water Treatment System Information

Location	Date of Discharge	Date of Lab Sample (for the discharge)	Real Time Monitored	Field Samples Taken	Discharge Volume	Results
Woodfibre	2024-06-17	2024-06-17	Yes	Yes	5.064m ³	Yes-Appendix C
Woodfibre	2024-06-18	2024-06-18	Yes	Yes	9.334 m ³	Yes-Appendix C
Woodfibre	2024-06-19	2024-06-19	Yes	Yes	7.744 m ³	Yes-Appendix C
Woodfibre	2024-06-20	2024-06-20	Yes	Yes	2.415 m ³	Yes-Appendix C
Woodfibre	2024-06-21	2024-06-21	Yes	Yes	38.032 m ³	Yes-Appendix C
Woodfibre	2024-06-24	2024-06-24	Yes	Yes	2.430 m ³	Yes-Appendix C

*Max discharge is 1500m³/day

Exceedance details

- On June 20th, there was a minor exceedance of long term Total Zinc, this exceedance was not reflected in the results from June 21st or June 24th. Long Term guidelines do not apply in this scenario as water has not been discharged for 5 weeks.

Receiving Environment Monitoring

The receiving environment is being monitored as outlined in the permit.

Table 4: Upstream Monitoring Information

Location	Date of Lab Sample	Real Time Monitored	Field Samples Taken	Results
Woodfibre Upstream	2024-06-18	Yes *	N/A	Full set of lab sample results, photo and documentation are provided in Appendix D.

Table 5: Downstream Monitoring Information



**Eagle Mountain - Woodfibre Gas Pipeline Project
Waste Discharge Permit PE-110163 Report**

Reporting Week	June 17 th to June 23 rd , 2024
Report #	13
Page	7 of 7

	Date of Lab Sample	Real Time Monitored	Field Samples Taken	Results
Woodfibre Downstream	2024-06-18	Yes *	N/A	Full set of lab sample results, photo and documentation are provided in Appendix D.

* Sondes set up to log temperature, specific conductivity, salinity (in PSU), pH, ORP, DO (mg/L), and turbidity (NTU) at 10 minute intervals.

Receiving Environment Monitoring Details

- Visual sheen checks are conducted during discharges.
- Any recorded exceedances in the laboratory and field samples collected from the receiving environment (upstream and downstream) are indicative of the existing background water quality in the Squamish River, and are not related to the EGP Project activities.



**Eagle Mountain - Woodfibre Gas Pipeline Project
Waste Discharge Permit PE-110163 Report**

Reporting Week	June 17 th to June 23 rd , 2024
Report #	13
Appendix A	A-1

Appendix A: BCR Site Point of Discharge from Water Treatment Plant Documentation



**Eagle Mountain - Woodfibre Gas Pipeline Project
Waste Discharge Permit PE-110163 Report**

Reporting Week	June 17 th to June 23 rd , 2024
Report #	13
Appendix A	A-2

BCR -No discharges



**Eagle Mountain - Woodfibre Gas Pipeline Project
Waste Discharge Permit PE-110163 Report**

Reporting Week	June 17 th to June 23 rd , 2024
Report #	13
Appendix B	B-1

Appendix B: BCR Site Receiving Environment Documentation



**Eagle Mountain - Woodfibre Gas Pipeline Project
Waste Discharge Permit PE-110163 Report**

Reporting Week	June 17 th to June 23 rd , 2024
Report #	13
Appendix B	B-2

BCR Site Receiving Environment Sample Analysis



**Eagle Mountain - Woodfibre Gas Pipeline Project
Waste Discharge Permit PE-110163 Report**

Reporting Week	June 17 th to June 23 rd , 2024
Report #	13
Appendix B	B-3

BCR Site Receiving Environment Lab Documentation

CERTIFICATE OF ANALYSIS

Work Order : **VA24B4128**
Client : **Triton Environmental Consultants Ltd.**
Contact :
Address :

Telephone :
Project : 11964
PO : 11964-Task20-Phase 3C-4C
C-O-C number : ----
Sampler : ----
Site : Water Analysis
Quote number : VA23-TRIT100-012_V2
No. of samples received : 2
No. of samples analysed : 2

Page : 1 of 6
Laboratory : ALS Environmental - Vancouver
Account Manager :
Address :

Telephone :
Date Samples Received : 17-Jun-2024 14:40
Date Analysis Commenced : 18-Jun-2024
Issue Date : 25-Jun-2024 20:15

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>
	Analyst	Metals, Burnaby, British Columbia
	Analyst	Metals, Burnaby, British Columbia
	Department Manager - Metals	Metals, Burnaby, British Columbia
	Analyst	Metals, Burnaby, British Columbia
	Senior Analyst	Inorganics, Burnaby, British Columbia
	Senior Analyst	Inorganics, Waterloo, Ontario
	Senior Analyst	Metals, Waterloo, Ontario
	Account Manager Assistant	Metals, Burnaby, British Columbia
		Administration, 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).

<i>Unit</i>	<i>Description</i>
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
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					Client sample ID	SQU US 1	SQU DS 1	---	---	---
(Matrix: Water)					Client sampling date / time	17-Jun-2024 10:40	17-Jun-2024 11:18	---	---	---
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4128-001	VA24B4128-002	-----	-----	-----	
					Result	Result	---	---	---	
Field Tests										
Conductivity, field	----	EF001/VA	0.10	µS/cm	40.000	39.000	---	---	---	
pH, field	----	EF001/VA	0.10	pH units	7.45	7.40	---	---	---	
Temperature, field	----	EF001/VA	0.10	°C	8.30	8.30	---	---	---	
Physical Tests										
Hardness (as CaCO ₃), dissolved	----	EC100/VA	0.60	mg/L	14.7	13.6	---	---	---	
Hardness (as CaCO ₃), from total Ca/Mg	----	EC100A/VA	0.60	mg/L	15.3	15.0	---	---	---	
Solids, total dissolved [TDS]	----	E162/VA	10	mg/L	30	28	---	---	---	
Solids, total suspended [TSS]	----	E160/VA	3.0	mg/L	<3.0	9.5	---	---	---	
Alkalinity, total (as CaCO ₃)	----	E290/VA	2.0	mg/L	13.4	12.3	---	---	---	
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L	0.0928	0.0557	---	---	---	
Bromide	24959-67-9	E235.Br-L/VA	0.050	mg/L	<0.050	<0.050	---	---	---	
Chloride	16887-00-6	E235.Cl/VA	0.50	mg/L	1.27	1.17	---	---	---	
Fluoride	16984-48-8	E235.F/VA	0.020	mg/L	<0.020	0.023	---	---	---	
Nitrate (as N)	14797-55-8	E235.NO3-L/V A	0.0050	mg/L	0.0138	0.0157	---	---	---	
Nitrite (as N)	14797-65-0	E235.NO2-L/V A	0.0010	mg/L	<0.0010	<0.0010	---	---	---	
Nitrogen, total	7727-37-9	E366/VA	0.030	mg/L	0.168	0.121	---	---	---	
Phosphorus, total	7723-14-0	E372-U/VA	0.0020	mg/L	0.0271	0.0262	---	---	---	
Sulfate (as SO ₄)	14808-79-8	E235.SO4/VA	0.30	mg/L	3.91	3.74	---	---	---	
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/VA	0.50	mg/L	0.82	0.96	---	---	---	
Total Sulfides										
Sulfide, total (as S)	18496-25-8	E395/VA	0.0015	mg/L	<0.0015	<0.0015	---	---	---	
Sulfide, un-ionized (as H ₂ S), from total	7783-06-4	EC395/VA	0.0015	mg/L	<0.0015	<0.0015	---	---	---	
Sulfide, total (as H ₂ S)	7783-06-4	E395/VA	0.0016	mg/L	<0.0016	<0.0016	---	---	---	
Total Metals										
Aluminum, total	7429-90-5	E420/VA	0.0030	mg/L	0.364	0.464	---	---	---	
Antimony, total	7440-36-0	E420/VA	0.00010	mg/L	<0.00010	<0.00010	---	---	---	



Analytical Results

Sub-Matrix: Water					Client sample ID	SQU US 1	SQU DS 1	----	----	----
(Matrix: Water)					Client sampling date / time	17-Jun-2024 10:40	17-Jun-2024 11:18	---	---	---
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4128-001	VA24B4128-002	-----	-----	-----	
					Result	Result	---	---	---	
Total Metals										
Arsenic, total	7440-38-2	E420/VA	0.00010	mg/L	0.00015	0.00017	---	---	---	
Barium, total	7440-39-3	E420/VA	0.00010	mg/L	0.0107	0.0121	---	---	---	
Beryllium, total	7440-41-7	E420/VA	0.000100	mg/L	<0.000100	<0.000100	---	---	---	
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	<0.010	---	---	---	
Cadmium, total	7440-43-9	E420/VA	0.0000050	mg/L	0.0000088	0.0000059	---	---	---	
Calcium, total	7440-70-2	E420/VA	0.050	mg/L	5.10	4.98	---	---	---	
Cesium, total	7440-46-2	E420/VA	0.000010	mg/L	0.000026	0.000032	---	---	---	
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	0.00017	0.00022	---	---	---	
Copper, total	7440-50-8	E420/VA	0.00050	mg/L	0.00120	0.00126	---	---	---	
Iron, total	7439-89-6	E420/VA	0.010	mg/L	0.352	0.424	---	---	---	
Lead, total	7439-92-1	E420/VA	0.000050	mg/L	0.000058	0.000069	---	---	---	
Lithium, total	7439-93-2	E420/VA	0.0010	mg/L	<0.0010	<0.0010	---	---	---	
Magnesium, total	7439-95-4	E420/VA	0.0050	mg/L	0.630	0.630	---	---	---	
Manganese, total	7439-96-5	E420/VA	0.00010	mg/L	0.0112	0.0130	---	---	---	
Mercury, total	7439-97-6	E508/VA	0.0000050	mg/L	<0.0000050	<0.0000050	---	---	---	
Molybdenum, total	7439-98-7	E420/VA	0.000050	mg/L	0.000489	0.000464	---	---	---	
Nickel, total	7440-02-0	E420/VA	0.00050	mg/L	<0.00050	<0.00050	---	---	---	
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	0.590	0.615	---	---	---	
Rubidium, total	7440-17-7	E420/VA	0.00020	mg/L	0.00101	0.00122	---	---	---	
Selenium, total	7782-49-2	E420/VA	0.000050	mg/L	0.000052	<0.000050	---	---	---	
Silicon, total	7440-21-3	E420/VA	0.10	mg/L	4.48	4.27	---	---	---	
Silver, total	7440-22-4	E420/VA	0.000010	mg/L	<0.000010	<0.000010	---	---	---	
Sodium, total	7440-23-5	E420/VA	0.050	mg/L	1.75	1.62	---	---	---	
Strontium, total	7440-24-6	E420/VA	0.00020	mg/L	0.0312	0.0302	---	---	---	
Sulfur, total	7704-34-9	E420/VA	0.50	mg/L	1.40	1.25	---	---	---	
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	<0.000010	---	---	---	



Analytical Results

Sub-Matrix: Water					Client sample ID	SQU US 1	SQU DS 1	----	----	----
(Matrix: Water)					Client sampling date / time	17-Jun-2024 10:40	17-Jun-2024 11:18	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4128-001	VA24B4128-002	-----	-----	-----	
					Result	Result	----	----	----	
Total Metals										
Thorium, total	7440-29-1	E420/VA	0.00010	mg/L	<0.00010	<0.00010	----	----	----	
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	0.0178	0.0247	----	----	----	
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	0.000041	0.000046	----	----	----	
Vanadium, total	7440-62-2	E420/VA	0.00050	mg/L	0.00159	0.00166	----	----	----	
Zinc, total	7440-66-6	E420/VA	0.0030	mg/L	<0.0030	<0.0030	----	----	----	
Zirconium, total	7440-67-7	E420/VA	0.00020	mg/L	<0.00020	<0.00020	----	----	----	
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/VA	0.0010	mg/L	0.0495	0.0372	----	----	----	
Antimony, dissolved	7440-36-0	E421/VA	0.00010	mg/L	<0.00010	<0.00010	----	----	----	
Arsenic, dissolved	7440-38-2	E421/VA	0.00010	mg/L	0.00012	0.00010	----	----	----	
Barium, dissolved	7440-39-3	E421/VA	0.00010	mg/L	0.00658	0.00639	----	----	----	
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	0.0000082	0.0000061	----	----	----	
Calcium, dissolved	7440-70-2	E421/VA	0.050	mg/L	5.05	4.67	----	----	----	
Cesium, dissolved	7440-46-2	E421/VA	0.000010	mg/L	0.000013	0.000011	----	----	----	
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	0.00078	0.00054	----	----	----	
Iron, dissolved	7439-89-6	E421/VA	0.010	mg/L	0.077	0.050	----	----	----	
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	<0.0010	<0.0010	----	----	----	
Magnesium, dissolved	7439-95-4	E421/VA	0.0050	mg/L	0.511	0.485	----	----	----	
Manganese, dissolved	7439-96-5	E421/VA	0.00010	mg/L	0.00519	0.00492	----	----	----	
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	0.000493	0.000477	----	----	----	
Nickel, dissolved	7440-02-0	E421/VA	0.00050	mg/L	<0.00050	<0.00050	----	----	----	



Analytical Results

Sub-Matrix: Water					Client sample ID	SQU US 1	SQU DS 1	----	----	----
(Matrix: Water)					Client sampling date / time	17-Jun-2024 10:40	17-Jun-2024 11:18	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4128-001	VA24B4128-002	-----	-----	-----	
					Result	Result	----	----	----	
Dissolved Metals										
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	0.583	0.547	----	----	----	
Rubidium, dissolved	7440-17-7	E421/VA	0.00020	mg/L	0.00080	0.00079	----	----	----	
Selenium, dissolved	7782-49-2	E421/VA	0.000050	mg/L	<0.000050	<0.000050	----	----	----	
Silicon, dissolved	7440-21-3	E421/VA	0.050	mg/L	3.83	3.42	----	----	----	
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	1.65	1.55	----	----	----	
Strontium, dissolved	7440-24-6	E421/VA	0.00020	mg/L	0.0308	0.0288	----	----	----	
Sulfur, dissolved	7704-34-9	E421/VA	0.50	mg/L	1.16	1.02	----	----	----	
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	0.00146	0.00117	----	----	----	
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	0.000026	0.000029	----	----	----	
Vanadium, dissolved	7440-62-2	E421/VA	0.00050	mg/L	0.00097	0.00086	----	----	----	
Zinc, dissolved	7440-66-6	E421/VA	0.0010	mg/L	0.0013	<0.0010	----	----	----	
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	----	----	----	
Speciated Metals										
Chromium, hexavalent [Cr VI], total	18540-29-9	E532/WT	0.00050	mg/L	<0.00050	<0.00050	----	----	----	
Chromium, trivalent [Cr III], total	16065-83-1	EC535/WT	0.00050	mg/L	<0.00050	<0.00050	----	----	----	

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

<p>Work Order : VA24B4128</p> <p>Client : Triton Environmental Consultants Ltd.</p> <p>Contact : [REDACTED]</p> <p>Address : [REDACTED]</p> <p>Telephone : [REDACTED]</p> <p>Project : 11964</p> <p>PO : 11964-Task20-Phase 3C-4C</p> <p>C-O-C number : ----</p> <p>Sampler : ----</p> <p>Site : Water Analysis</p> <p>Quote number : VA23-TRIT100-012_V2</p> <p>No. of samples received : 2</p> <p>No. of samples analysed : 2</p>	<p>Page : 1 of 15</p> <p>Laboratory : ALS Environmental - Vancouver</p> <p>Account Manager : [REDACTED]</p> <p>Address : [REDACTED]</p> <p>Telephone : [REDACTED]</p> <p>Date Samples Received : 17-Jun-2024 14:40</p> <p>Issue Date : 25-Jun-2024 20:16</p>
--	---

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 Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- Method Blank value outliers occur - please see following pages for full details.
- 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)

- No Analysis Holding Time Outliers exist.

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
Method Blank (MB) Values								
Physical Tests	QC-MRG2-1503457 001	----	Alkalinity, total (as CaCO3)	----	E290	1.5 mg/L ^B	1.5 mg/L	Blank result exceeds permitted value

Result Qualifiers

Qualifier	Description
B	Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.

Matrix Spike (MS) Recoveries

Total Metals	Anonymous	Anonymous	Thorium, total	7440-29-1	E420	68.3 % ^{MES}	70.0-130%	Recovery less than lower data quality objective
--------------	-----------	-----------	----------------	-----------	------	-----------------------	-----------	--

Result Qualifiers

Qualifier	Description
MES	Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).



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 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 : Ammonia by Fluorescence											
Amber glass total (sulfuric acid) SQU DS 1	E298	17-Jun-2024	23-Jun-2024	28 days	6 days	✔	24-Jun-2024	28 days	7 days	✔	
Anions and Nutrients : Ammonia by Fluorescence											
Amber glass total (sulfuric acid) SQU US 1	E298	17-Jun-2024	23-Jun-2024	28 days	6 days	✔	24-Jun-2024	28 days	7 days	✔	
Anions and Nutrients : Bromide in Water by IC (Low Level)											
HDPE SQU DS 1	E235.Br-L	17-Jun-2024	20-Jun-2024	28 days	3 days	✔	20-Jun-2024	28 days	3 days	✔	
Anions and Nutrients : Bromide in Water by IC (Low Level)											
HDPE SQU US 1	E235.Br-L	17-Jun-2024	20-Jun-2024	28 days	3 days	✔	20-Jun-2024	28 days	3 days	✔	
Anions and Nutrients : Chloride in Water by IC											
HDPE SQU DS 1	E235.Cl	17-Jun-2024	20-Jun-2024	28 days	3 days	✔	20-Jun-2024	28 days	3 days	✔	
Anions and Nutrients : Chloride in Water by IC											
HDPE SQU US 1	E235.Cl	17-Jun-2024	20-Jun-2024	28 days	3 days	✔	20-Jun-2024	28 days	3 days	✔	
Anions and Nutrients : Fluoride in Water by IC											
HDPE SQU DS 1	E235.F	17-Jun-2024	20-Jun-2024	28 days	3 days	✔	20-Jun-2024	28 days	3 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		
Anions and Nutrients : Fluoride in Water by IC											
HDPE SQU US 1	E235.F	17-Jun-2024	20-Jun-2024	28 days	3 days	✓	20-Jun-2024	28 days	3 days	✓	
Anions and Nutrients : Nitrate in Water by IC (Low Level)											
HDPE SQU DS 1	E235.NO3-L	17-Jun-2024	20-Jun-2024	3 days	3 days	✓	20-Jun-2024	3 days	3 days	✓	
Anions and Nutrients : Nitrate in Water by IC (Low Level)											
HDPE SQU US 1	E235.NO3-L	17-Jun-2024	20-Jun-2024	3 days	3 days	✓	20-Jun-2024	3 days	3 days	✓	
Anions and Nutrients : Nitrite in Water by IC (Low Level)											
HDPE SQU DS 1	E235.NO2-L	17-Jun-2024	20-Jun-2024	3 days	3 days	✓	20-Jun-2024	3 days	3 days	✓	
Anions and Nutrients : Nitrite in Water by IC (Low Level)											
HDPE SQU US 1	E235.NO2-L	17-Jun-2024	20-Jun-2024	3 days	3 days	✓	20-Jun-2024	3 days	3 days	✓	
Anions and Nutrients : Sulfate in Water by IC											
HDPE SQU DS 1	E235.SO4	17-Jun-2024	20-Jun-2024	28 days	3 days	✓	20-Jun-2024	28 days	3 days	✓	
Anions and Nutrients : Sulfate in Water by IC											
HDPE SQU US 1	E235.SO4	17-Jun-2024	20-Jun-2024	28 days	3 days	✓	20-Jun-2024	28 days	3 days	✓	
Anions and Nutrients : Total Nitrogen by Colourimetry											
Amber glass total (sulfuric acid) SQU DS 1	E366	17-Jun-2024	23-Jun-2024	28 days	6 days	✓	25-Jun-2024	28 days	8 days	✓	
Anions and Nutrients : Total Nitrogen by Colourimetry											
Amber glass total (sulfuric acid) SQU US 1	E366	17-Jun-2024	23-Jun-2024	28 days	6 days	✓	25-Jun-2024	28 days	8 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	
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SQU DS 1	E372-U	17-Jun-2024	23-Jun-2024	28 days	6 days	✓	25-Jun-2024	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SQU US 1	E372-U	17-Jun-2024	23-Jun-2024	28 days	6 days	✓	25-Jun-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial - dissolved (lab preserved) SQU DS 1	E509	17-Jun-2024	21-Jun-2024	28 days	4 days	✓	21-Jun-2024	28 days	4 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial - dissolved (lab preserved) SQU US 1	E509	17-Jun-2024	21-Jun-2024	28 days	4 days	✓	21-Jun-2024	28 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) SQU DS 1	E421	17-Jun-2024	20-Jun-2024	180 days	3 days	✓	21-Jun-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) SQU US 1	E421	17-Jun-2024	20-Jun-2024	180 days	3 days	✓	21-Jun-2024	180 days	4 days	✓
Field Tests : Field pH,EC,Salinity, TDS, Cl2,CIO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial - total (lab preserved) SQU DS 1	EF001	17-Jun-2024	----	----	----		18-Jun-2024	----	1 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,CIO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial - total (lab preserved) SQU US 1	EF001	17-Jun-2024	----	----	----		18-Jun-2024	----	1 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SQU DS 1	E358-L	17-Jun-2024	23-Jun-2024	28 days	6 days	✓	23-Jun-2024	28 days	6 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		
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)											
Amber glass dissolved (sulfuric acid) SQU US 1	E358-L	17-Jun-2024	23-Jun-2024	28 days	6 days	✓	23-Jun-2024	28 days	6 days	✓	
Physical Tests : Alkalinity Species by Titration											
HDPE SQU DS 1	E290	17-Jun-2024	20-Jun-2024	14 days	3 days	✓	21-Jun-2024	14 days	4 days	✓	
Physical Tests : Alkalinity Species by Titration											
HDPE SQU US 1	E290	17-Jun-2024	20-Jun-2024	14 days	3 days	✓	21-Jun-2024	14 days	4 days	✓	
Physical Tests : TDS by Gravimetry											
HDPE SQU DS 1	E162	17-Jun-2024	----	----	----		21-Jun-2024	7 days	5 days	✓	
Physical Tests : TDS by Gravimetry											
HDPE SQU US 1	E162	17-Jun-2024	----	----	----		21-Jun-2024	7 days	5 days	✓	
Physical Tests : TSS by Gravimetry											
HDPE SQU DS 1	E160	17-Jun-2024	----	----	----		21-Jun-2024	7 days	5 days	✓	
Physical Tests : TSS by Gravimetry											
HDPE SQU US 1	E160	17-Jun-2024	----	----	----		21-Jun-2024	7 days	5 days	✓	
Speciated Metals : Total Hexavalent Chromium (Cr VI) by IC											
UV-inhibited HDPE - total (sodium hydroxide) SQU DS 1	E532	17-Jun-2024	----	----	----		20-Jun-2024	28 days	3 days	✓	
Speciated Metals : Total Hexavalent Chromium (Cr VI) by IC											
UV-inhibited HDPE - total (sodium hydroxide) SQU US 1	E532	17-Jun-2024	----	----	----		20-Jun-2024	28 days	3 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	
Total Metals : Total Mercury in Water by CVAAS										
Glass vial - total (lab preserved) SQU DS 1	E508	17-Jun-2024	24-Jun-2024	28 days	7 days	✔	24-Jun-2024	28 days	7 days	✔
Total Metals : Total Mercury in Water by CVAAS										
Glass vial - total (lab preserved) SQU US 1	E508	17-Jun-2024	24-Jun-2024	28 days	7 days	✔	24-Jun-2024	28 days	7 days	✔
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) SQU DS 1	E420	17-Jun-2024	19-Jun-2024	180 days	2 days	✔	20-Jun-2024	180 days	3 days	✔
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) SQU US 1	E420	17-Jun-2024	19-Jun-2024	180 days	2 days	✔	20-Jun-2024	180 days	3 days	✔
Total Sulfides : Total Sulfide by Colourimetry (Automated Flow)										
HDPE total (zinc acetate+sodium hydroxide) SQU DS 1	E395	17-Jun-2024	----	----	----		23-Jun-2024	7 days	6 days	✔
Total Sulfides : Total Sulfide by Colourimetry (Automated Flow)										
HDPE total (zinc acetate+sodium hydroxide) SQU US 1	E395	17-Jun-2024	----	----	----		23-Jun-2024	7 days	6 days	✔

Legend & Qualifier Definitions

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 (%)		
			QC	Regular	Actual	Expected	Evaluation
Analytical Methods							
Laboratory Duplicates (DUP)							
Alkalinity Species by Titration	E290	1503457	1	16	6.2	5.0	✔
Ammonia by Fluorescence	E298	1509875	1	14	7.1	5.0	✔
Bromide in Water by IC (Low Level)	E235.Br-L	1503462	1	11	9.0	5.0	✔
Chloride in Water by IC	E235.Cl	1503461	1	16	6.2	5.0	✔
Dissolved Mercury in Water by CVAAS	E509	1506104	1	20	5.0	5.0	✔
Dissolved Metals in Water by CRC ICPMS	E421	1498622	1	19	5.2	5.0	✔
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1509869	1	7	14.2	5.0	✔
Fluoride in Water by IC	E235.F	1503460	1	13	7.6	5.0	✔
Nitrate in Water by IC (Low Level)	E235.NO3-L	1503463	1	19	5.2	5.0	✔
Nitrite in Water by IC (Low Level)	E235.NO2-L	1503464	1	19	5.2	5.0	✔
Sulfate in Water by IC	E235.SO4	1503465	1	13	7.6	5.0	✔
TDS by Gravimetry	E162	1508274	1	20	5.0	5.0	✔
Total Hexavalent Chromium (Cr VI) by IC	E532	1504811	1	20	5.0	5.0	✔
Total Mercury in Water by CVAAS	E508	1510722	1	20	5.0	5.0	✔
Total Metals in Water by CRC ICPMS	E420	1499874	1	18	5.5	5.0	✔
Total Nitrogen by Colourimetry	E366	1509870	1	17	5.8	5.0	✔
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1509871	1	19	5.2	5.0	✔
Total Sulfide by Colourimetry (Automated Flow)	E395	1509557	1	16	6.2	5.0	✔
TSS by Gravimetry	E160	1508284	1	20	5.0	5.0	✔
Laboratory Control Samples (LCS)							
Alkalinity Species by Titration	E290	1503457	1	16	6.2	5.0	✔
Ammonia by Fluorescence	E298	1509875	1	14	7.1	5.0	✔
Bromide in Water by IC (Low Level)	E235.Br-L	1503462	1	11	9.0	5.0	✔
Chloride in Water by IC	E235.Cl	1503461	1	16	6.2	5.0	✔
Dissolved Mercury in Water by CVAAS	E509	1506104	1	20	5.0	5.0	✔
Dissolved Metals in Water by CRC ICPMS	E421	1498622	1	19	5.2	5.0	✔
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1509869	1	7	14.2	5.0	✔
Fluoride in Water by IC	E235.F	1503460	1	13	7.6	5.0	✔
Nitrate in Water by IC (Low Level)	E235.NO3-L	1503463	1	19	5.2	5.0	✔
Nitrite in Water by IC (Low Level)	E235.NO2-L	1503464	1	19	5.2	5.0	✔
Sulfate in Water by IC	E235.SO4	1503465	1	13	7.6	5.0	✔
TDS by Gravimetry	E162	1508274	1	20	5.0	5.0	✔
Total Hexavalent Chromium (Cr VI) by IC	E532	1504811	1	20	5.0	5.0	✔
Total Mercury in Water by CVAAS	E508	1510722	1	20	5.0	5.0	✔
Total Metals in Water by CRC ICPMS	E420	1499874	1	18	5.5	5.0	✔
Total Nitrogen by Colourimetry	E366	1509870	1	17	5.8	5.0	✔



Matrix: **Water**

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

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
Analytical Methods							
Laboratory Control Samples (LCS) - Continued							
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1509871	1	19	5.2	5.0	✔
Total Sulfide by Colourimetry (Automated Flow)	E395	1509557	1	16	6.2	5.0	✔
TSS by Gravimetry	E160	1508284	1	20	5.0	5.0	✔
Method Blanks (MB)							
Alkalinity Species by Titration	E290	1503457	1	16	6.2	5.0	✔
Ammonia by Fluorescence	E298	1509875	1	14	7.1	5.0	✔
Bromide in Water by IC (Low Level)	E235.Br-L	1503462	1	11	9.0	5.0	✔
Chloride in Water by IC	E235.Cl	1503461	1	16	6.2	5.0	✔
Dissolved Mercury in Water by CVAAS	E509	1506104	1	20	5.0	5.0	✔
Dissolved Metals in Water by CRC ICPMS	E421	1498622	1	19	5.2	5.0	✔
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1509869	1	7	14.2	5.0	✔
Fluoride in Water by IC	E235.F	1503460	1	13	7.6	5.0	✔
Nitrate in Water by IC (Low Level)	E235.NO3-L	1503463	1	19	5.2	5.0	✔
Nitrite in Water by IC (Low Level)	E235.NO2-L	1503464	1	19	5.2	5.0	✔
Sulfate in Water by IC	E235.SO4	1503465	1	13	7.6	5.0	✔
TDS by Gravimetry	E162	1508274	1	20	5.0	5.0	✔
Total Hexavalent Chromium (Cr VI) by IC	E532	1504811	1	20	5.0	5.0	✔
Total Mercury in Water by CVAAS	E508	1510722	1	20	5.0	5.0	✔
Total Metals in Water by CRC ICPMS	E420	1499874	2	18	11.1	5.0	✔
Total Nitrogen by Colourimetry	E366	1509870	1	17	5.8	5.0	✔
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1509871	1	19	5.2	5.0	✔
Total Sulfide by Colourimetry (Automated Flow)	E395	1509557	1	16	6.2	5.0	✔
TSS by Gravimetry	E160	1508284	1	20	5.0	5.0	✔
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1509875	1	14	7.1	5.0	✔
Bromide in Water by IC (Low Level)	E235.Br-L	1503462	1	11	9.0	5.0	✔
Chloride in Water by IC	E235.Cl	1503461	1	16	6.2	5.0	✔
Dissolved Mercury in Water by CVAAS	E509	1506104	1	20	5.0	5.0	✔
Dissolved Metals in Water by CRC ICPMS	E421	1498622	1	19	5.2	5.0	✔
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1509869	1	7	14.2	5.0	✔
Fluoride in Water by IC	E235.F	1503460	1	13	7.6	5.0	✔
Nitrate in Water by IC (Low Level)	E235.NO3-L	1503463	1	19	5.2	5.0	✔
Nitrite in Water by IC (Low Level)	E235.NO2-L	1503464	1	19	5.2	5.0	✔
Sulfate in Water by IC	E235.SO4	1503465	1	13	7.6	5.0	✔
Total Hexavalent Chromium (Cr VI) by IC	E532	1504811	1	20	5.0	5.0	✔
Total Mercury in Water by CVAAS	E508	1510722	1	20	5.0	5.0	✔
Total Metals in Water by CRC ICPMS	E420	1499874	1	18	5.5	5.0	✔
Total Nitrogen by Colourimetry	E366	1509870	1	17	5.8	5.0	✔
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1509871	1	19	5.2	5.0	✔



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

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
<i>Analytical Methods</i>							
Matrix Spikes (MS) - Continued							
Total Sulfide by Colourimetry (Automated Flow)	E395	1509557	1	16	6.2	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
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.
Bromide in Water by IC (Low Level)	E235.Br-L 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 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 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 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 ALS Environmental - Vancouver	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 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 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.



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
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)
Dissolved Organic Carbon by Combustion (Low Level)	E358-L 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 ₂ . 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 Nitrogen by Colourimetry	E366 ALS Environmental - Vancouver	Water	Chinchilla Scientific Nitrate Method, 2011	Following digestion, total nitrogen is determined colourimetrically using a discrete analyzer utilizing the vanadium chloride reduction method. This method of analysis is approved under US EPA 40 CFR Part 136 (May 2021).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U 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 Sulfide by Colourimetry (Automated Flow)	E395 ALS Environmental - Vancouver	Water	APHA 4500 -S E-Auto-Colorimetry	Sulfide is determined using the gas dialysis automated methylene blue colourimetric method. Results expressed "as H ₂ S" if reported represent the maximum possible H ₂ S concentration based on the total sulfide concentration in the sample. The H ₂ S calculation converts Total Sulphide as (S ₂ ⁻) and reports it as Total Sulphide as (H ₂ S)
Total Metals in Water by CRC ICPMS	E420 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. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Metals in Water by CRC ICPMS	E421 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. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Mercury in Water by CVAAS	E508 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 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.



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Total Hexavalent Chromium (Cr VI) by IC	E532 ALS Environmental - Waterloo	Water	APHA 3500-Cr C (Ion Chromatography)	Hexavalent Chromium is measured by Ion chromatography-Post column reaction and UV detection. Results are based on an un-filtered, field-preserved sample.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Vancouver	Water	APHA 2340B	"Hardness (as CaCO ₃), dissolved" is calculated from the sum of dissolved 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 (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.
Un-ionized Total Hydrogen Sulfide (calculated)	EC395 ALS Environmental - Vancouver	Water	APHA 4500 -S H	Un-ionized sulfide is calculated using results from total sulfide analysis, pH, temperature, and ionic strength of the sample. Calculation of un-ionized sulfide using total sulfide concentrations may be biased high due to particulate forms of sulfide measured during total sulfide testing.
Total Trivalent Chromium (Cr III) by Calculation	EC535 ALS Environmental - Waterloo	Water	APHA 3030B/6020A/EPA 7196A (mod)	Chromium (III)-Total is calculated as the difference between the total chromium and the total hexavalent chromium (Cr(VI)) results. The Limit of Reporting for Chromium (III) varies as a function of the test results.
Field pH,EC,Salinity, TDS, Cl ₂ ,ClO ₂ ,ORP,DO, Turbidity,T,T-P,o-PO ₄ ,NH ₃ ,Chloramine	EF001 ALS Environmental - Vancouver	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl ₂ ,ClO ₂ ,ORP,DO, Turbidity,T,T-P,o-PO ₄ ,NH ₃ or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

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.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Vancouver	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Nitrogen in water	EP366 ALS Environmental - Vancouver	Water	APHA 4500-P J (mod)	Samples for total nitrogen analysis are digested using a heated persulfate digestion. Nitrogen compounds are converted to nitrate in this digestion.
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Vancouver	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.

Page : 15 of 15
Work Order : VA24B4128
Client : Triton Environmental Consultants Ltd.
Project : 11964



<i>Preparation Methods</i>	<i>Method / Lab</i>	<i>Matrix</i>	<i>Method Reference</i>	<i>Method Descriptions</i>
Dissolved Metals Water Filtration	EP421 ALS Environmental - Vancouver	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Vancouver	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

QUALITY CONTROL REPORT

Work Order : **VA24B4128**
Client : Triton Environmental Consultants Ltd.
Contact :
Address :

Telephone :
Project : 11964
PO : 11964-Task20-Phase 3C-4C
C-O-C number : ----
Sampler : ----
Site : Water Analysis
Quote number : VA23-TRIT100-012_V2
No. of samples received : 2
No. of samples analysed : 2

Page : 1 of 17
Laboratory : ALS Environmental - Vancouver
Account Manager :
Address :

Telephone :
Date Samples Received : 17-Jun-2024 14:40
Date Analysis Commenced : 18-Jun-2024
Issue Date : 25-Jun-2024 20:16

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
	Analyst	Vancouver Metals, Burnaby, British Columbia
	Analyst	Vancouver Metals, Burnaby, British Columbia
	Analyst	Vancouver Metals, Burnaby, British Columbia
	Department Manager - Metals	Vancouver Metals, Burnaby, British Columbia
	Analyst	Vancouver Inorganics, Burnaby, British Columbia
	Senior Analyst	Waterloo Inorganics, Waterloo, Ontario
	Senior Analyst	Waterloo Metals, Waterloo, Ontario
	Account Manager Assistant	Vancouver Metals, Burnaby, British Columbia

Page : 2 of 17
Work Order : VA24B4128
Client : Triton Environmental Consultants Ltd.
Project : 11964



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: 1503457)											
KS2402294-002	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	171	172	0.408%	20%	----
Physical Tests (QC Lot: 1508274)											
FJ2401740-013	Anonymous	Solids, total dissolved [TDS]	----	E162	20	mg/L	989	1000	1.46%	20%	----
Physical Tests (QC Lot: 1508284)											
FJ2401740-013	Anonymous	Solids, total suspended [TSS]	----	E160	3.0	mg/L	<3.0	<3.0	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1503460)											
KS2402293-001	Anonymous	Fluoride	16984-48-8	E235.F	0.100	mg/L	1.37	1.44	4.98%	20%	----
Anions and Nutrients (QC Lot: 1503461)											
KS2402293-001	Anonymous	Chloride	16887-00-6	E235.Cl	2.50	mg/L	7.55	7.57	0.02	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1503462)											
KS2402293-001	Anonymous	Bromide	24959-67-9	E235.Br-L	0.250	mg/L	<0.250	<0.250	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1503463)											
KS2402293-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0250	mg/L	<0.0250	<0.0250	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1503464)											
KS2402293-001	Anonymous	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: 1503465)											
KS2402293-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	1.50	mg/L	340	338	0.500%	20%	----
Anions and Nutrients (QC Lot: 1509870)											
CG2408388-002	Anonymous	Nitrogen, total	7727-37-9	E366	0.030	mg/L	0.208	0.204	0.004	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1509871)											
CG2408388-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0056	0.0057	0.0001	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1509875)											
CG2408388-002	Anonymous	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: 1509869)											
VA24B4128-001	SQU US 1	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	0.82	0.76	0.06	Diff <2x LOR	----
Total Sulfides (QC Lot: 1509557)											
EO2404852-001	Anonymous	Sulfide, total (as S)	18496-25-8	E395	0.0015	mg/L	0.0268	0.0272	1.40%	20%	----
Total Metals (QC Lot: 1499874)											
FJ2401693-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0060	mg/L	0.0685	0.0658	3.99%	20%	----
		Antimony, total	7440-36-0	E420	0.00020	mg/L	0.00332	0.00330	0.784%	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 (QC Lot: 1499874) - continued											
FJ2401693-001	Anonymous	Arsenic, total	7440-38-2	E420	0.00020	mg/L	0.00124	0.00123	0.000006	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00020	mg/L	0.0887	0.0905	2.01%	20%	----
		Beryllium, total	7440-41-7	E420	0.000040	mg/L	<0.000040	<0.000040	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000100	mg/L	<0.000100	<0.000100	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.020	mg/L	0.393	0.378	3.73%	20%	----
		Cadmium, total	7440-43-9	E420	0.0000100	mg/L	0.0000167	0.0000206	0.0000039	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.100	mg/L	27.1	26.5	2.17%	20%	----
		Cesium, total	7440-46-2	E420	0.000020	mg/L	0.000194	0.000197	0.000003	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00100	mg/L	<0.00100	<0.00100	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00020	mg/L	0.00119	0.00116	0.00003	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00100	mg/L	<0.00100	<0.00100	0	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.020	mg/L	0.086	0.087	0.001	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000100	mg/L	0.000133	0.000134	0.0000002	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0020	mg/L	0.372	0.374	0.646%	20%	----
		Magnesium, total	7439-95-4	E420	0.0100	mg/L	11.4	11.1	2.16%	20%	----
		Manganese, total	7439-96-5	E420	0.00020	mg/L	0.00318	0.00321	0.703%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000100	mg/L	0.0166	0.0168	1.06%	20%	----
		Nickel, total	7440-02-0	E420	0.00100	mg/L	0.0153	0.0154	0.932%	20%	----
		Phosphorus, total	7723-14-0	E420	0.100	mg/L	<0.100	<0.100	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.100	mg/L	2.63	2.62	0.293%	20%	----
		Rubidium, total	7440-17-7	E420	0.00040	mg/L	0.00522	0.00533	2.10%	20%	----
		Selenium, total	7782-49-2	E420	0.000100	mg/L	0.00330	0.00300	9.55%	20%	----
		Silicon, total	7440-21-3	E420	0.20	mg/L	2.85	2.97	4.34%	20%	----
		Silver, total	7440-22-4	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.100	mg/L	386	390	1.13%	20%	----
		Strontium, total	7440-24-6	E420	0.00040	mg/L	0.0592	0.0576	2.79%	20%	----
		Sulfur, total	7704-34-9	E420	1.00	mg/L	84.1	87.6	4.12%	20%	----
		Tellurium, total	13494-80-9	E420	0.00040	mg/L	<0.00040	<0.00040	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000020	mg/L	0.000032	0.000036	0.000005	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00060	mg/L	0.00082	0.00128	0.00045	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000020	mg/L	0.00852	0.00872	2.31%	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 (QC Lot: 1499874) - continued											
FJ2401693-001	Anonymous	Vanadium, total	7440-62-2	E420	0.00100	mg/L	0.00176	0.00179	0.00003	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0060	mg/L	<0.0060	<0.0060	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00040	mg/L	<0.00040	<0.00040	0	Diff <2x LOR	----
Total Metals (QC Lot: 1510722)											
VA24B4115-014	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1498622)											
VA24B3980-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0768	0.0749	2.42%	20%	----
		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	0.00014	0.00013	0.00001	Diff <2x LOR	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0116	0.0114	1.79%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	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	10.9	11.4	4.45%	20%	----
		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	0.00224	0.00218	2.39%	20%	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.031	0.031	0.0007	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	0.100	mg/L	1.54	1.50	2.16%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00219	0.00212	3.22%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000424	0.000446	0.000022	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	0.100	mg/L	0.203	0.200	0.004	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	3.39	3.36	0.988%	20%	----
		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	1.24	1.23	0.804%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0340	0.0345	1.47%	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
Dissolved Metals (QC Lot: 1498622) - continued											
VA24B3980-001	Anonymous	Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	1.20	1.23	0.03	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	0.00064	0.00064	0.0000002	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	0.000016	0.000016	0.0000004	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	----
		Zirconium, dissolved	7440-67-7	E421	0.00040	mg/L	<0.00040	<0.00040	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1506104)											
FJ2401693-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Speciated Metals (QC Lot: 1504811)											
HA2401440-001	Anonymous	Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.00050	mg/L	<0.00050	<0.00050	0	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: 1503457)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	# 1.5	B
Physical Tests (QCLot: 1508274)						
Solids, total dissolved [TDS]	----	E162	10	mg/L	<10	----
Physical Tests (QCLot: 1508284)						
Solids, total suspended [TSS]	----	E160	3	mg/L	<3.0	----
Anions and Nutrients (QCLot: 1503460)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 1503461)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 1503462)						
Bromide	24959-67-9	E235.Br-L	0.05	mg/L	<0.050	----
Anions and Nutrients (QCLot: 1503463)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1503464)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1503465)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1509870)						
Nitrogen, total	7727-37-9	E366	0.03	mg/L	<0.030	----
Anions and Nutrients (QCLot: 1509871)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1509875)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Organic / Inorganic Carbon (QCLot: 1509869)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Sulfides (QCLot: 1509557)						
Sulfide, total (as S)	18496-25-8	E395	0.0015	mg/L	<0.0015	----
Total Metals (QCLot: 1499874)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	MBRR
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	----



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1499874) - continued						
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	----
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	----



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1510722)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1498622)						
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	----
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	----



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1498622) - continued						
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	----
Dissolved Metals (QCLot: 1506104)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Speciated Metals (QCLot: 1504811)						
Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.0005	mg/L	<0.00050	----

Qualifiers

Qualifier	Description
B	Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.
MBRR	Initial MB for this submission had positive results for flagged analyte (data not shown). Low level samples were repeated with new QC (2nd MB results shown). High level results (>5x initial MB level) and non-detect results were reported and are defensible



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: 1503457)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	500 mg/L	106	85.0	115	----
Physical Tests (QCLot: 1508274)									
Solids, total dissolved [TDS]	----	E162	10	mg/L	1000 mg/L	105	85.0	115	----
Physical Tests (QCLot: 1508284)									
Solids, total suspended [TSS]	----	E160	3	mg/L	150 mg/L	97.2	85.0	115	----
Anions and Nutrients (QCLot: 1503460)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1503461)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1503462)									
Bromide	24959-67-9	E235.Br-L	0.05	mg/L	0.5 mg/L	104	85.0	115	----
Anions and Nutrients (QCLot: 1503463)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	100.0	90.0	110	----
Anions and Nutrients (QCLot: 1503464)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1503465)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 1509870)									
Nitrogen, total	7727-37-9	E366	0.03	mg/L	0.5 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 1509871)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.05 mg/L	95.7	80.0	120	----
Anions and Nutrients (QCLot: 1509875)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	96.2	85.0	115	----
Organic / Inorganic Carbon (QCLot: 1509869)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	110	80.0	120	----
Total Sulfides (QCLot: 1509557)									
Sulfide, total (as S)	18496-25-8	E395	0.0015	mg/L	0.08 mg/L	107	80.0	120	----
Total Metals (QCLot: 1499874)									



Sub-Matrix: **Water**

Laboratory Control Sample (LCS) Report

Analyte	CAS Number	Method	LOR	Unit	Spike		Recovery (%)		Recovery Limits (%)		Qualifier
					Target Concentration	LCS	Low	High			
Total Metals (QCLot: 1499874) - continued											
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	99.5	80.0	120	----		
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	99.1	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	99.0	80.0	120	----		
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	99.4	80.0	120	----		
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	102	80.0	120	----		
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	100	80.0	120	----		
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	99.8	80.0	120	----		
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	99.6	80.0	120	----		
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	99.6	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	101	80.0	120	----		
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	100	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	100	80.0	120	----		
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	99.0	80.0	120	----		
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	101	80.0	120	----		
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	98.9	80.0	120	----		
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	99.8	80.0	120	----		
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	97.4	80.0	120	----		
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	98.2	80.0	120	----		
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	104	80.0	120	----		
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	102	80.0	120	----		
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	100	80.0	120	----		
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	108	80.0	120	----		
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	97.2	80.0	120	----		
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	103	80.0	120	----		
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	99.7	80.0	120	----		
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	95.9	80.0	120	----		
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	100	80.0	120	----		
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	100	80.0	120	----		
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	97.0	80.0	120	----		
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	100	80.0	120	----		
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	99.0	80.0	120	----		
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	99.9	80.0	120	----		
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	97.6	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: 1499874) - continued									
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	98.8	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	93.9	80.0	120	----
Total Metals (QCLot: 1510722)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	102	80.0	120	----
Dissolved Metals (QCLot: 1498622)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	103	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	102	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	108	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	97.4	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	101	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	98.1	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	97.8	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	102	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	98.4	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	102	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	101	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	101	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	99.8	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	103	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	93.4	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	96.6	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	98.2	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	105	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	98.7	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	97.9	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	106	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	100	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	99.5	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	107	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	101	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	103	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	106	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	98.1	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
Dissolved Metals (QCLot: 1498622) - continued									
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	110	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	102	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	96.5	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	100	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	98.0	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	99.6	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	103	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	102	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	105	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	99.7	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	101	80.0	120	----
Speciated Metals (QCLot: 1504811)									
Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.0005	mg/L	0.025 mg/L	98.8	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.

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: 1503460)										
KS2402294-001	Anonymous	Fluoride	16984-48-8	E235.F	50.9 mg/L	50 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1503461)										
KS2402294-001	Anonymous	Chloride	16887-00-6	E235.Cl	5010 mg/L	5000 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 1503462)										
KS2402294-001	Anonymous	Bromide	24959-67-9	E235.Br-L	25.5 mg/L	25 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1503463)										
KS2402294-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	125 mg/L	125 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 1503464)										
KS2402294-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	24.8 mg/L	25 mg/L	99.4	75.0	125	----
Anions and Nutrients (QCLot: 1503465)										
KS2402294-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	5120 mg/L	5000 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1509870)										
CG2408388-003	Anonymous	Nitrogen, total	7727-37-9	E366	0.417 mg/L	0.4 mg/L	104	70.0	130	----
Anions and Nutrients (QCLot: 1509871)										
CG2408388-003	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0493 mg/L	0.05 mg/L	98.6	70.0	130	----
Anions and Nutrients (QCLot: 1509875)										
CG2408388-003	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.175 mg/L	0.2 mg/L	87.7	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1509869)										
VA24B4128-002	SQU DS 1	Carbon, dissolved organic [DOC]	----	E358-L	5.16 mg/L	5 mg/L	103	70.0	130	----
Total Sulfides (QCLot: 1509557)										
EO2404852-002	Anonymous	Sulfide, total (as S)	18496-25-8	E395	0.228 mg/L	0.2 mg/L	114	75.0	125	----
Total Metals (QCLot: 1499874)										
FJ2401693-002	Anonymous	Aluminum, total	7429-90-5	E420	0.192 mg/L	0.2 mg/L	96.0	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0192 mg/L	0.02 mg/L	96.0	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0209 mg/L	0.02 mg/L	105	70.0	130	----
		Barium, total	7440-39-3	E420	ND mg/L	----	ND	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0393 mg/L	0.04 mg/L	98.2	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00935 mg/L	0.01 mg/L	93.5	70.0	130	----
		Boron, total	7440-42-8	E420	0.104 mg/L	0.1 mg/L	104	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00373 mg/L	0.004 mg/L	93.2	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.00934 mg/L	0.01 mg/L	93.4	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0386 mg/L	0.04 mg/L	96.6	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: 1499874) - continued										
FJ2401693-002	Anonymous	Cobalt, total	7440-48-4	E420	0.0191 mg/L	0.02 mg/L	95.6	70.0	130	----
		Copper, total	7440-50-8	E420	0.0182 mg/L	0.02 mg/L	91.2	70.0	130	----
		Iron, total	7439-89-6	E420	1.96 mg/L	2 mg/L	98.1	70.0	130	----
		Lead, total	7439-92-1	E420	0.0182 mg/L	0.02 mg/L	91.2	70.0	130	----
		Lithium, total	7439-93-2	E420	0.0944 mg/L	0.1 mg/L	94.4	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0175 mg/L	0.02 mg/L	87.6	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0197 mg/L	0.02 mg/L	98.5	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0346 mg/L	0.04 mg/L	86.6	70.0	130	----
		Phosphorus, total	7723-14-0	E420	9.55 mg/L	10 mg/L	95.5	70.0	130	----
		Potassium, total	7440-09-7	E420	3.87 mg/L	4 mg/L	96.9	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0189 mg/L	0.02 mg/L	94.6	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0464 mg/L	0.04 mg/L	116	70.0	130	----
		Silicon, total	7440-21-3	E420	10.2 mg/L	10 mg/L	102	70.0	130	----
		Silver, total	7440-22-4	E420	0.00368 mg/L	0.004 mg/L	91.9	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	0.0390 mg/L	0.04 mg/L	97.6	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00337 mg/L	0.004 mg/L	84.2	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0136 mg/L	0.02 mg/L	68.3	70.0	130	MES
		Tin, total	7440-31-5	E420	0.0187 mg/L	0.02 mg/L	93.7	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0412 mg/L	0.04 mg/L	103	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0185 mg/L	0.02 mg/L	92.5	70.0	130	----
		Uranium, total	7440-61-1	E420	ND mg/L	----	ND	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	0.352 mg/L	0.4 mg/L	88.0	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0392 mg/L	0.04 mg/L	98.0	70.0	130	----
Total Metals (QCLot: 1510722)										
VA24B4115-015	Anonymous	Mercury, total	7439-97-6	E508	0.0000930 mg/L	0 mg/L	93.0	70.0	130	----
Dissolved Metals (QCLot: 1498622)										
VA24B3980-002	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.194 mg/L	0.2 mg/L	96.8	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0195 mg/L	0.02 mg/L	97.4	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0205 mg/L	0.02 mg/L	103	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	----	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0406 mg/L	0.04 mg/L	101	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00924 mg/L	0.01 mg/L	92.4	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.095 mg/L	0.1 mg/L	95.3	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00394 mg/L	0.004 mg/L	98.4	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.00972 mg/L	0.01 mg/L	97.2	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0378 mg/L	0.04 mg/L	94.5	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0192 mg/L	0.02 mg/L	96.0	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
Dissolved Metals (QCLot: 1498622) - continued										
VA24B3980-002	Anonymous	Copper, dissolved	7440-50-8	E421	0.0186 mg/L	0.02 mg/L	93.1	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.86 mg/L	2 mg/L	92.8	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0198 mg/L	0.02 mg/L	98.8	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0951 mg/L	0.1 mg/L	95.1	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0185 mg/L	0.02 mg/L	92.7	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	ND mg/L	----	ND	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0370 mg/L	0.04 mg/L	92.4	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	9.80 mg/L	10 mg/L	98.0	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	3.83 mg/L	4 mg/L	95.7	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0193 mg/L	0.02 mg/L	96.3	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0388 mg/L	0.04 mg/L	97.0	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.62 mg/L	10 mg/L	96.2	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00407 mg/L	0.004 mg/L	102	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	18.2 mg/L	20 mg/L	90.8	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0399 mg/L	0.04 mg/L	99.7	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00395 mg/L	0.004 mg/L	98.8	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0203 mg/L	0.02 mg/L	102	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0196 mg/L	0.02 mg/L	97.8	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0384 mg/L	0.04 mg/L	96.0	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0199 mg/L	0.02 mg/L	99.4	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00397 mg/L	0.004 mg/L	99.2	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.0984 mg/L	0.1 mg/L	98.4	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.388 mg/L	0.4 mg/L	97.0	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0393 mg/L	0.04 mg/L	98.3	70.0	130	----
Dissolved Metals (QCLot: 1506104)										
FJ2401693-002	Anonymous	Mercury, dissolved	7439-97-6	E509	0.000100 mg/L	0 mg/L	100	70.0	130	----
Speciated Metals (QCLot: 1504811)										
HA2401440-001	Anonymous	Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.0389 mg/L	0.04 mg/L	97.3	70.0	130	----

Qualifiers

Qualifier	Description
MES	Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).



Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878

www.alsglobal.com

Affix ALS barcode label here
(lab use only)

COC Number: 17 -

Page 1 of

Report To Company: Triton Environmental Contact: [Redacted] Phone: [Redacted] Street: [Redacted] City/Province: [Redacted] Postal Code: [Redacted]		Report Format / Distribution Select Report Format: <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input type="checkbox"/> EDD (DIGITAL) Quality Control (QC) Report with Report <input checked="" type="checkbox"/> <input type="checkbox"/> NO <input checked="" type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked Select Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX Email 1 or Fax: [Redacted] Email 2: [Redacted] Email 3: [Redacted]			Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply) Regular [R] <input checked="" type="checkbox"/> Standard TAT if received by 3 pm - business days - no surcharges apply EMERGENCY 4 day [P4-20%] <input type="checkbox"/> 3 day [P3-25%] <input type="checkbox"/> 2 day [P2-50%] <input type="checkbox"/> 1 Business day [E1 - 100%] <input type="checkbox"/> Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] <input type="checkbox"/> Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm For tests that can not be performed according to the service level selected, you will be contacted.												
Invoice To Same as Report To <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO Copy of Invoice with Report <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO Company: [Redacted] Contact: [Redacted]		Invoice Distribution Select Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input checked="" type="checkbox"/> MAIL <input checked="" type="checkbox"/> FAX Email 1 or Fax: [Redacted] Email 2: [Redacted]			Analysis Request Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below F P P F/P Total metals + mercury Dissolved metals + mercury Total hexavalent chromium Total trivalent chromium TSS TDS Nutrients (ammonia, ammonium, total nitrogen, total phosphorus) Total sulfide (low) (as H ₂ S), Unionized Sulfide (low) Anions scan (Br, Cl, F, NO ₂ , NO ₃ , SO ₄) General parameters (alkalinity) DOC SAMPLES ON HOLD Sample is hazardous (please provide further detail) NUMBER OF CONTAINERS												
Project Information ALS Account # / Quote #: VA23-TRIT100-012 Job #: 11964 PO / AFE: 11964 - Task 20 - Phase 3C-4C LSD:		Oil and Gas Required Fields (client use) AFE/Cost Center: PO# Major/Minor Code: Routing Code: Requisitioner: Location:															
ALS Lab Work Order # (lab use only): 4124		ALS Contact: [Redacted]			Sampler:												
ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)			Date (dd-mmm-yy)	Time (hh:mm)	Sample Type											
	SQU US 1 pH: 7.45 cond: 40µS/cm temp: 8.3°C			17-Jun-24	10:40	Water											
	SQU DS 1 pH: 7.40 cond: 39µS/cm temp: 8.3°C			17-Jun-24	11:18	Water											
	Duplicate N/A					Water											
	Field Blank N/A					Water											
	Trip Blank N/A					Water											
Drinking Water (DW) Samples¹ (client use) Are samples taken from a Regulated DW System? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES Are samples for human consumption/ use? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES		Special Instructions / Specify Triton Project # 11964															
SHIPMENT RELEASE (client use)		INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)												
[Redacted] 17-Jun-24		Time: 14:40 Received by: [Redacted] Date: [Redacted]			Time: 2:40 PM Received by: [Redacted] Date: 17/6/24												

Environmental Division
Vancouver
Work Order Reference
VA24B4128



Telephone: +1 604 263 4188

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.



**Eagle Mountain - Woodfibre Gas Pipeline Project
Waste Discharge Permit PE-110163 Report**

Reporting Week	June 17 th to June 23 rd , 2024
Report #	13
Appendix B	B-4

BCR Site Receiving Environment Field Notes and Logs



FortisBC Eagle Mountain-Woodfibre Gas Pipeline

Water Discharge Authorization Water Quality Monitoring

2024-6-17-Blanchard-1896C

Project Component:	Tunnel	Site Name:	Receiving Environment - Downstream of Discharge
Inspection Date:	06/17/2024	Location:	BC Rail Site
Triton QP:	Sam Blanchard	Latitude/Longitude:	49.725282 -123.165175
Temperature(c):	Low 12 High 16	Permit:	AE 111824
Weather Conditions:	Overcast	Ground Conditions:	Damp

Observations

Time: 13:55:34 **Flow Volume (visual):** high

Notes:

Odour Detected?: No **Notes:**

Unusual Colour?: No **Notes:**

Unusual Observations?: No **Notes:**

Sheen on Water?: No **Notes:**

Samples Collected - Parameters

Total Metals + Mercury	Yes	General Parameters (Alkalinity)	Yes	Other Sample: Total trivalent and hexavalent chromium.
Dissolved Metals + Mercury	Yes	Total Sulfide, Unionized Sulfide	Yes	
TSS	Yes	Anions	Yes	QA Samples: No Total trivalent and hexavalent chromium.
TDS	Yes	VOC/VPH	N/A	
Nutrients	Yes	EPH, PAH, LEPH/HEPH	N/A	
DOC	Yes	Trout LC50	N/A	

Logger Maintenance

Logger Maintenance Performed?	Yes	Photo of COC with Lab Signature?	Yes
--------------------------------------	-----	---	-----

Describe Logger Maintenance

Wiped logger sensors.

Photos



Photo: 1
Location: SQU DS1
Description: US View



Photo: 2
Location: SQU DS1
Description: DS View

Photos



Photo: 3
Location: SQU DS1
Description: Across View

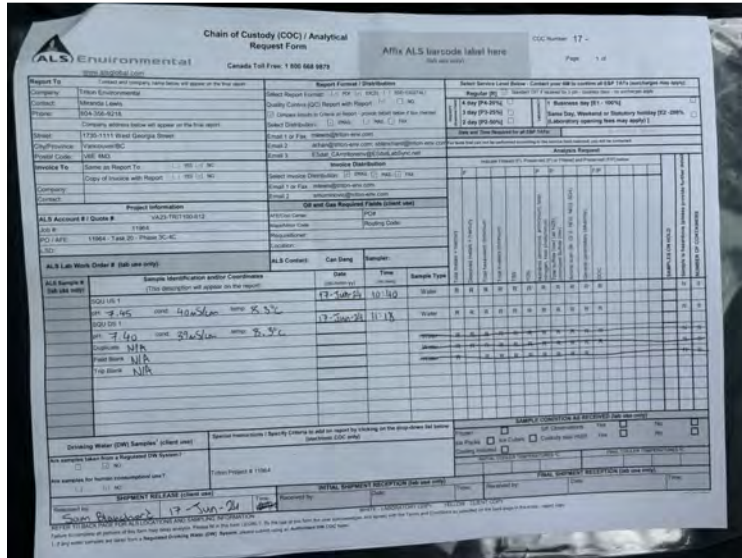


Photo: 4
Location: SQU DS1
Description: Lab CoC



2024-6-17-Blanchard-1896C

Sign Off

Report Prepared By: Sam Blanchard

Report Reviewed:

Report Reviewer:

Professional(s) of Record:

Name:

Designation:

Designation Number:



FortisBC Eagle Mountain-Woodfibre Gas Pipeline

Water Discharge Authorization Water Quality Monitoring

2024-6-17-Blanchard-E6CCF

Project Component:	Tunnel	Site Name:	Receiving Environment - Upstream of Discharge
Inspection Date:	06/17/2024	Location:	BC Rail Site
Triton QP:	Sam Blanchard	Latitude/Longitude:	49.726866 -123.163912
Temperature(c):	Low 12 High 16	Permit:	AE 111824
Weather Conditions:	Overcast	Ground Conditions:	Damp

Observations

Time: 10:40:00 **Flow Volume (visual):** high

Notes:

Odour Detected?: No **Notes:**

Unusual Colour?: No **Notes:**

Unusual Observations?: No **Notes:**

Sheen on Water?: No **Notes:**

Samples Collected - Parameters

Total Metals + Mercury	Yes	General Parameters (Alkalinity)	Yes	Other Sample: Total trivalent and hexavalent chromium
Dissolved Metals + Mercury	Yes	Total Sulfide, Unionized Sulfide	Yes	
TSS	Yes	Anions	Yes	QA Samples: No Total trivalent and hexavalent chromium
TDS	Yes	VOC/VPH	N/A	
Nutrients	Yes	EPH, PAH, LEPH/HEPH	N/A	
DOC	Yes	Trout LC50	N/A	

Logger Maintenance

Logger Maintenance Performed?	Yes	Photo of COC with Lab Signature?	Yes
--------------------------------------	-----	---	-----

Describe Logger Maintenance

Wiped logger sensors, calibrated for pH and ORP

Photos



Photo: 1
Location: SQU US1
Description: US View

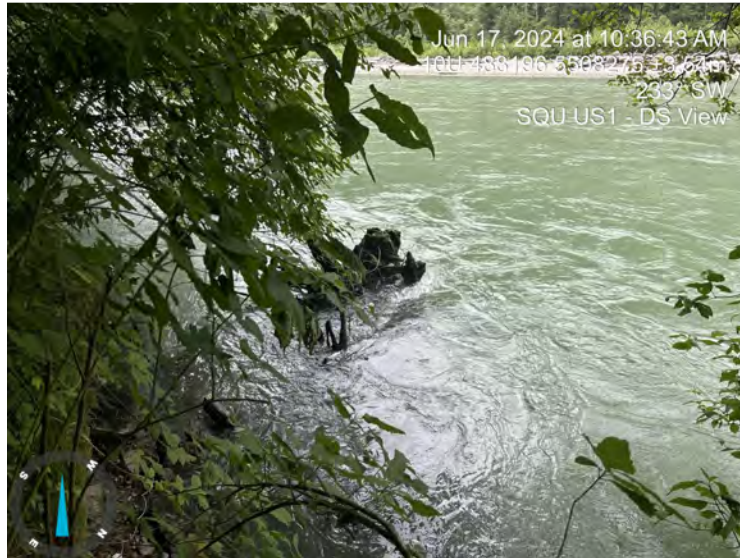


Photo: 2
Location: SQU US1
Description: DS View

Photos



Photo: 3
Location: SQU US1
Description: Across View

Chain of Custody (COC) / Analytical Request Form

ALS Environmental
Canada Toll Free: 1 800 668 9876

Affix ALS barcode label here

Page 1 of 4

Request To: [Blank] Contact and company name below will appear on the top report

Company: [Blank] Report Format / Distribution: [Blank] Select Service Level Below - Contact your ALS to confirm all SAP / SAP's manufacturer may apply

Contact: [Blank] Quality Control (QC) Report with Report: [Blank] No Yes

Address: [Blank] Contact Issues to Client or Report - provide what value if you prefer

Phone: [Blank] Safety Distribution: [Blank] None Mail Fax

City/Province: [Blank] Email: [Blank] Email Fax Business Day (8:15 - 16:00)

Postal Code: [Blank] Same as Report To Different Same Day (Business Day) Saturday (Saturday morning hours only apply)

Invoice To: [Blank] Same as Report To No Yes

Company: [Blank] Copy of Invoice with Report: [Blank] No Yes

Project Information: [Blank] Same as Report To No Yes

ALS Account # / Quota # [Blank] ALS Account # 1084

Site # [Blank] Site Name [Blank] Site Address [Blank] Site City [Blank] Site Province [Blank] Site Postal Code [Blank]

ALS Lab Work Order # (ALS use only) [Blank]

ALS Sample # (ALS use only)	Sample Identification and/or Conditions (This description will appear on the report)	Date	Time	Sample Type	Parameter	Method	Unit	Result	Remarks
SQU US1	Water	17-Jun-24	10:10	Water					
SQU US1	Water	17-Jun-24	11:15	Water					

Temperature: [Blank] Turbidity: [Blank] Conductivity: [Blank] pH: [Blank] Dissolved Oxygen: [Blank] Total Dissolved Solids: [Blank] Total Suspended Solids: [Blank] Total Hardness: [Blank] Total Alkalinity: [Blank] Total Acidity: [Blank] Total Chloride: [Blank] Total Sulfate: [Blank] Total Nitrate: [Blank] Total Ammonia: [Blank] Total Phosphate: [Blank] Total Silica: [Blank] Total Fluoride: [Blank] Total Cyanide: [Blank] Total Selenium: [Blank] Total Arsenic: [Blank] Total Cadmium: [Blank] Total Chromium: [Blank] Total Copper: [Blank] Total Lead: [Blank] Total Manganese: [Blank] Total Mercury: [Blank] Total Nickel: [Blank] Total Silver: [Blank] Total Zinc: [Blank] Total Barium: [Blank] Total Boron: [Blank] Total Calcium: [Blank] Total Magnesium: [Blank] Total Potassium: [Blank] Total Sodium: [Blank] Total Chlorine: [Blank] Total Fluorine: [Blank] Total Bromine: [Blank] Total Iodine: [Blank] Total Sulfur: [Blank] Total Phosphorus: [Blank] Total Nitrogen: [Blank] Total Carbon: [Blank] Total Oxygen: [Blank] Total Hydrogen: [Blank] Total Nitrogen (Total): [Blank] Total Phosphorus (Total): [Blank] Total Nitrogen (Ammonia): [Blank] Total Phosphorus (Ammonia): [Blank] Total Nitrogen (Nitrate): [Blank] Total Phosphorus (Nitrate): [Blank] Total Nitrogen (Nitrite): [Blank] Total Phosphorus (Nitrite): [Blank] Total Nitrogen (Ammonia Nitrite): [Blank] Total Phosphorus (Ammonia Nitrite): [Blank] Total Nitrogen (Ammonia Nitrate): [Blank] Total Phosphorus (Ammonia Nitrate): [Blank] Total Nitrogen (Ammonia Nitrite Nitrate): [Blank] Total Phosphorus (Ammonia Nitrite Nitrate): [Blank] Total Nitrogen (Ammonia Nitrite Nitrate): [Blank] Total Phosphorus (Ammonia Nitrite Nitrate): [Blank]

Remarks: [Blank]

Signature: [Blank] Date: [Blank]

Photo: 4
Location: SQU US1
Description: Lab CoC



Sign Off

Report Prepared By: Sam Blanchard

Report Reviewed:


Report Reviewer:

Professional(s) of Record:

Name:

Designation:

Designation Number:

 Eagle Mountain - Woodfibre Gas Pipeline Project Waste Discharge Permit PE-110163 Report	Reporting Week	June 17 th to June 23 rd , 2024
	Report #	13
	Appendix C	C-1

Appendix C: Woodfibre Site Point of Discharge from Water Treatment Plant Documentation



**Eagle Mountain - Woodfibre Gas Pipeline Project
Waste Discharge Permit PE-110163 Report**

Reporting Week	June 17 th to June 23 rd , 2024
Report #	13
Appendix C	C-2

Woodfibre Site Sample Analysis



**Eagle Mountain - Woodfibre Gas Pipeline Project
Waste Discharge Permit PE-110163 Report**

Reporting Week	June 17 th to June 23 rd , 2024
Report #	13
Appendix C	C-3

Woodfibre Site Sample Lab Documentation

CERTIFICATE OF ANALYSIS

Work Order : **VA24B4143**
Client : **Triton Environmental Consultants Ltd.**
Contact :
Address :

Telephone :
Project : 11964
PO : 11964-Task 30-Phase 3C-4C
C-O-C number : ----
Sampler : ----
Site : Water Analysis
Quote number : VA23-TRIT100-012_V2
No. of samples received : 1
No. of samples analysed : 1

Page : 1 of 11
Laboratory : ALS Environmental - Vancouver
Account Manager :
Address :

Telephone :
Date Samples Received : 17-Jun-2024 18:30
Date Analysis Commenced : 18-Jun-2024
Issue Date : 19-Jun-2024 14:43

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>
	Analyst	Inorganics, Burnaby, British Columbia
	Laboratory Analyst	Inorganics, Edmonton, Alberta
		Metals, Burnaby, British Columbia
	Analyst	Metals, Burnaby, British Columbia
	Manager - Inorganics	Inorganics, Waterloo, Ontario
	Manager - Inorganics	Metals, Waterloo, Ontario
	Department Manager - Inorganics	Inorganics, Burnaby, British Columbia
	Lab Assistant	Inorganics, Burnaby, British Columbia
	Account Manager Assistant	Administration, Burnaby, British Columbia
	Team Leader - Organics	Inorganics, Burnaby, British Columbia
	Team Leader - Organics	Organics, Burnaby, British Columbia
	Analyst	Metals, Burnaby, British Columbia
	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).

<i>Unit</i>	<i>Description</i>
-	no units
°C	degrees celsius
µg/L	micrograms per litre
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
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.

Qualifiers

<i>Qualifier</i>	<i>Description</i>
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).



Analytical Results

Sub-Matrix: Water					Client sample ID	WLNG EOP	---	---	---	---
(Matrix: Water)					Client sampling date / time	17-Jun-2024 15:45	---	---	---	---
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4143-001	-----	-----	-----	-----	
					Result	---	---	---	---	
Field Tests										
Conductivity, field	----	EF001/VA	0.10	µS/cm	348.00	---	---	---	---	
pH, field	----	EF001/VA	0.10	pH units	7.49	---	---	---	---	
Temperature, field	----	EF001/VA	0.10	°C	17.6	---	---	---	---	
Physical Tests										
Hardness (as CaCO3), dissolved	----	EC100/VA	0.60	mg/L	72.2	---	---	---	---	
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/VA	0.60	mg/L	74.1	---	---	---	---	
Solids, total dissolved [TDS]	----	E162/VA	10	mg/L	166	---	---	---	---	
Solids, total suspended [TSS]	----	E160/VA	3.0	mg/L	<3.0	---	---	---	---	
Alkalinity, total (as CaCO3)	----	E290/VA	2.0	mg/L	123	---	---	---	---	
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L	<0.0050	---	---	---	---	
Bromide	24959-67-9	E235.Br-L/VA	0.050	mg/L	<0.050	---	---	---	---	
Chloride	16887-00-6	E235.Cl/VA	0.50	mg/L	16.2	---	---	---	---	
Fluoride	16984-48-8	E235.F/VA	0.020	mg/L	0.477	---	---	---	---	
Nitrate (as N)	14797-55-8	E235.NO3-L/V A	0.0050	mg/L	<0.0050	---	---	---	---	
Nitrite (as N)	14797-65-0	E235.NO2-L/V A	0.0010	mg/L	<0.0010	---	---	---	---	
Nitrogen, total	7727-37-9	E366/VA	0.030	mg/L	0.391	---	---	---	---	
Phosphorus, total	7723-14-0	E372-U/VA	0.0020	mg/L	0.0189	---	---	---	---	
Sulfate (as SO4)	14808-79-8	E235.SO4/VA	0.30	mg/L	7.63	---	---	---	---	
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/VA	0.50	mg/L	4.74	---	---	---	---	
Total Sulfides										
Sulfide, total (as S)	18496-25-8	E395/VA	0.0015	mg/L	0.0018	---	---	---	---	
Sulfide, un-ionized (as H2S), from total	7783-06-4	EC395/VA	0.0015	mg/L	<0.0015	---	---	---	---	
Sulfide, total (as H2S)	7783-06-4	E395/VA	0.0016	mg/L	0.0019	---	---	---	---	
Total Metals										
Aluminum, total	7429-90-5	E420/VA	0.0030	mg/L	0.0088	---	---	---	---	
Antimony, total	7440-36-0	E420/VA	0.00010	mg/L	0.00108	---	---	---	---	



Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	WLNQ EOP	----	----	----	----
Client sampling date / time					17-Jun-2024 15:45	----	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4143-001	-----	-----	-----	-----	-----
					Result	---	---	---	---	---
Total Metals										
Arsenic, total	7440-38-2	E420/VA	0.00010	mg/L	0.00109	---	---	---	---	---
Barium, total	7440-39-3	E420/VA	0.00010	mg/L	0.00385	---	---	---	---	---
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	0.031	---	---	---	---	---
Cadmium, total	7440-43-9	E420/VA	0.0000050	mg/L	<0.0000100 ^{DLM}	---	---	---	---	---
Calcium, total	7440-70-2	E420/VA	0.050	mg/L	25.2	---	---	---	---	---
Cesium, total	7440-46-2	E420/VA	0.000010	mg/L	0.000038	---	---	---	---	---
Chromium, total	7440-47-3	E420/VA	0.00050	mg/L	<0.00050	---	---	---	---	---
Cobalt, total	7440-48-4	E420/VA	0.00010	mg/L	0.00012	---	---	---	---	---
Copper, total	7440-50-8	E420/VA	0.00050	mg/L	<0.00050	---	---	---	---	---
Iron, total	7439-89-6	E420/VA	0.010	mg/L	0.049	---	---	---	---	---
Lead, total	7439-92-1	E420/VA	0.000050	mg/L	<0.000050	---	---	---	---	---
Lithium, total	7439-93-2	E420/VA	0.0010	mg/L	0.0191	---	---	---	---	---
Magnesium, total	7439-95-4	E420/VA	0.0050	mg/L	2.72	---	---	---	---	---
Manganese, total	7439-96-5	E420/VA	0.00010	mg/L	0.105	---	---	---	---	---
Mercury, total	7439-97-6	E508/VA	0.0000050	mg/L	<0.0000050	---	---	---	---	---
Molybdenum, total	7439-98-7	E420/VA	0.000050	mg/L	0.00856	---	---	---	---	---
Nickel, total	7440-02-0	E420/VA	0.00050	mg/L	<0.00050	---	---	---	---	---
Phosphorus, total	7723-14-0	E420/VA	0.050	mg/L	<0.050	---	---	---	---	---
Potassium, total	7440-09-7	E420/VA	0.050	mg/L	10.2	---	---	---	---	---
Rubidium, total	7440-17-7	E420/VA	0.00020	mg/L	0.0156	---	---	---	---	---
Selenium, total	7782-49-2	E420/VA	0.000050	mg/L	0.000066	---	---	---	---	---
Silicon, total	7440-21-3	E420/VA	0.10	mg/L	5.76	---	---	---	---	---
Silver, total	7440-22-4	E420/VA	0.000010	mg/L	<0.000010	---	---	---	---	---
Sodium, total	7440-23-5	E420/VA	0.050	mg/L	32.4	---	---	---	---	---
Strontium, total	7440-24-6	E420/VA	0.00020	mg/L	0.106	---	---	---	---	---
Sulfur, total	7704-34-9	E420/VA	0.50	mg/L	2.51	---	---	---	---	---
Tellurium, total	13494-80-9	E420/VA	0.00020	mg/L	<0.00020	---	---	---	---	---
Thallium, total	7440-28-0	E420/VA	0.000010	mg/L	0.000056	---	---	---	---	---



Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	WLNQ EOP	----	----	----	----
Client sampling date / time					17-Jun-2024 15:45	----	----	----	----	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4143-001	-----	-----	-----	-----	
					Result	---	---	---	---	
Total Metals										
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	0.00034	---	---	---	---	
Tungsten, total	7440-33-7	E420/VA	0.00010	mg/L	0.00013	---	---	---	---	
Uranium, total	7440-61-1	E420/VA	0.000010	mg/L	0.000646	---	---	---	---	
Vanadium, total	7440-62-2	E420/VA	0.00050	mg/L	0.00065	---	---	---	---	
Zinc, total	7440-66-6	E420/VA	0.0030	mg/L	<0.0030	---	---	---	---	
Zirconium, total	7440-67-7	E420/VA	0.00020	mg/L	<0.00020	---	---	---	---	
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/VA	0.0010	mg/L	0.0029	---	---	---	---	
Antimony, dissolved	7440-36-0	E421/VA	0.00010	mg/L	0.00108	---	---	---	---	
Arsenic, dissolved	7440-38-2	E421/VA	0.00010	mg/L	0.00107	---	---	---	---	
Barium, dissolved	7440-39-3	E421/VA	0.00010	mg/L	0.00316	---	---	---	---	
Beryllium, dissolved	7440-41-7	E421/VA	0.000100	mg/L	<0.000100	---	---	---	---	
Bismuth, dissolved	7440-69-9	E421/VA	0.000050	mg/L	<0.000050	---	---	---	---	
Boron, dissolved	7440-42-8	E421/VA	0.010	mg/L	0.027	---	---	---	---	
Cadmium, dissolved	7440-43-9	E421/VA	0.0000050	mg/L	<0.0000100 ^{DLM}	---	---	---	---	
Calcium, dissolved	7440-70-2	E421/VA	0.050	mg/L	24.6	---	---	---	---	
Cesium, dissolved	7440-46-2	E421/VA	0.000010	mg/L	0.000039	---	---	---	---	
Chromium, dissolved	7440-47-3	E421/VA	0.00050	mg/L	<0.00050	---	---	---	---	
Cobalt, dissolved	7440-48-4	E421/VA	0.00010	mg/L	0.00010	---	---	---	---	
Copper, dissolved	7440-50-8	E421/VA	0.00020	mg/L	0.00026	---	---	---	---	
Iron, dissolved	7439-89-6	E421/VA	0.010	mg/L	0.010	---	---	---	---	
Lead, dissolved	7439-92-1	E421/VA	0.000050	mg/L	<0.000050	---	---	---	---	
Lithium, dissolved	7439-93-2	E421/VA	0.0010	mg/L	0.0183	---	---	---	---	
Magnesium, dissolved	7439-95-4	E421/VA	0.0050	mg/L	2.62	---	---	---	---	
Manganese, dissolved	7439-96-5	E421/VA	0.00010	mg/L	0.0997	---	---	---	---	
Mercury, dissolved	7439-97-6	E509/VA	0.0000050	mg/L	<0.0000050	---	---	---	---	
Molybdenum, dissolved	7439-98-7	E421/VA	0.000050	mg/L	0.00836	---	---	---	---	
Nickel, dissolved	7440-02-0	E421/VA	0.00050	mg/L	<0.00050	---	---	---	---	



Analytical Results

Sub-Matrix: Water					Client sample ID	WLNQ EOP	----	----	----	----
(Matrix: Water)					Client sampling date / time	17-Jun-2024 15:45	---	---	---	---
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4143-001	-----	-----	-----	-----	
					Result	---	---	---	---	
Dissolved Metals										
Phosphorus, dissolved	7723-14-0	E421/VA	0.050	mg/L	<0.050	---	---	---	---	
Potassium, dissolved	7440-09-7	E421/VA	0.050	mg/L	10.0	---	---	---	---	
Rubidium, dissolved	7440-17-7	E421/VA	0.00020	mg/L	0.0153	---	---	---	---	
Selenium, dissolved	7782-49-2	E421/VA	0.000050	mg/L	0.000092	---	---	---	---	
Silicon, dissolved	7440-21-3	E421/VA	0.050	mg/L	5.56	---	---	---	---	
Silver, dissolved	7440-22-4	E421/VA	0.000010	mg/L	<0.000010	---	---	---	---	
Sodium, dissolved	7440-23-5	E421/VA	0.050	mg/L	31.0	---	---	---	---	
Strontium, dissolved	7440-24-6	E421/VA	0.00020	mg/L	0.104	---	---	---	---	
Sulfur, dissolved	7704-34-9	E421/VA	0.50	mg/L	2.56	---	---	---	---	
Tellurium, dissolved	13494-80-9	E421/VA	0.00020	mg/L	<0.00020	---	---	---	---	
Thallium, dissolved	7440-28-0	E421/VA	0.000010	mg/L	0.000053	---	---	---	---	
Thorium, dissolved	7440-29-1	E421/VA	0.00010	mg/L	<0.00010	---	---	---	---	
Tin, dissolved	7440-31-5	E421/VA	0.00010	mg/L	<0.00010	---	---	---	---	
Titanium, dissolved	7440-32-6	E421/VA	0.00030	mg/L	<0.00030	---	---	---	---	
Tungsten, dissolved	7440-33-7	E421/VA	0.00010	mg/L	0.00011	---	---	---	---	
Uranium, dissolved	7440-61-1	E421/VA	0.000010	mg/L	0.000558	---	---	---	---	
Vanadium, dissolved	7440-62-2	E421/VA	0.00050	mg/L	0.00062	---	---	---	---	
Zinc, dissolved	7440-66-6	E421/VA	0.0010	mg/L	0.0014	---	---	---	---	
Zirconium, dissolved	7440-67-7	E421/VA	0.00020	mg/L	<0.00020	---	---	---	---	
Dissolved mercury filtration location	----	EP509/VA	-	-	Field	---	---	---	---	
Dissolved metals filtration location	----	EP421/VA	-	-	Field	---	---	---	---	
Speciated Metals										
Chromium, hexavalent [Cr VI], total	18540-29-9	E532/WT	0.00050	mg/L	0.00052	---	---	---	---	
Chromium, trivalent [Cr III], total	16065-83-1	EC535/WT	0.00050	mg/L	<0.00050	---	---	---	---	
Aggregate Organics										
Phenols, total (4AAP)	----	E562/EO	0.0010	mg/L	<0.0010	---	---	---	---	
Volatile Organic Compounds										
Chlorobenzene	108-90-7	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Chloromethane	74-87-3	E611C/VA	5.0	µg/L	<5.0	---	---	---	---	
Dichlorobenzene, 1,2-	95-50-1	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	



Analytical Results

Sub-Matrix: Water					Client sample ID	WLNQ EOP	----	----	----	----
(Matrix: Water)					Client sampling date / time	17-Jun-2024 15:45	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4143-001	-----	-----	-----	-----	
					Result	---	---	---	---	
Volatile Organic Compounds										
Dichlorobenzene, 1,3-	541-73-1	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dichlorobenzene, 1,4-	106-46-7	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dichloropropane, 1,2-	78-87-5	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dichloropropylene, cis+trans-1,3-	542-75-6	E611C/VA	0.75	µg/L	<0.75	---	---	---	---	
Dichloropropylene, cis-1,3-	10061-01-5	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Tetrachloroethane, 1,1,1,2-	630-20-6	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Tetrachloroethane, 1,1,2,2-	79-34-5	E611C/VA	0.20	µg/L	<0.20	---	---	---	---	
Trichloroethane, 1,1,2-	79-00-5	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Trichlorofluoromethane	75-69-4	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Volatile Organic Compounds [Drycleaning]										
Carbon tetrachloride	56-23-5	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Chloroethane	75-00-3	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dichloroethane, 1,1-	75-34-3	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dichloroethane, 1,2-	107-06-2	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dichloroethylene, 1,1-	75-35-4	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dichloroethylene, cis-1,2-	156-59-2	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dichloroethylene, trans-1,2-	156-60-5	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dichloromethane	75-09-2	E611C/VA	1.0	µg/L	<1.0	---	---	---	---	
Dichloropropylene, trans-1,3-	10061-02-6	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Tetrachloroethylene	127-18-4	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Trichloroethane, 1,1,1-	71-55-6	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Trichloroethylene	79-01-6	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Vinyl chloride	75-01-4	E611C/VA	0.40	µg/L	<0.40	---	---	---	---	
Volatile Organic Compounds [Fuels]										
Benzene	71-43-2	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Ethylbenzene	100-41-4	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Styrene	100-42-5	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Toluene	108-88-3	E611C/VA	0.40	µg/L	<0.40	---	---	---	---	
Xylene, m+p-	179601-23-1	E611C/VA	0.40	µg/L	<0.40	---	---	---	---	



Analytical Results

Sub-Matrix: Water					Client sample ID	WLNQ EOP	----	----	----	----
(Matrix: Water)					Client sampling date / time	17-Jun-2024 15:45	---	---	---	---
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4143-001	-----	-----	-----	-----	
Result						---	---	---	---	
Volatile Organic Compounds [Fuels]										
Xylene, o-	95-47-6	E611C/VA	0.30	µg/L	<0.30	---	---	---	---	
Xylenes, total	1330-20-7	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Volatile Organic Compounds [THMs]										
Bromodichloromethane	75-27-4	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Bromoform	75-25-2	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Chloroform	67-66-3	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dibromochloromethane	124-48-1	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Hydrocarbons										
EPH (C10-C19)	---	E601A/VA	250	µg/L	<250	---	---	---	---	
EPH (C19-C32)	---	E601A/VA	250	µg/L	<250	---	---	---	---	
VHw (C6-C10)	---	E581.VH+F1/ VA	100	µg/L	<100	---	---	---	---	
HEPHw	---	EC600A/VA	250	µg/L	<250	---	---	---	---	
LEPHw	---	EC600A/VA	250	µg/L	<250	---	---	---	---	
VPHw	---	EC580A/VA	100	µg/L	<100	---	---	---	---	
Hydrocarbons Surrogates										
Bromobenzotrifluoride, 2- (EPH surrogate)	392-83-6	E601A/VA	1.0	%	79.4	---	---	---	---	
Dichlorotoluene, 3,4-	95-75-0	E581.VH+F1/ VA	1.0	%	75.2	---	---	---	---	
Volatile Organic Compounds Surrogates										
Bromofluorobenzene, 4-	460-00-4	E611C/VA	1.0	%	85.8	---	---	---	---	
Difluorobenzene, 1,4-	540-36-3	E611C/VA	1.0	%	102	---	---	---	---	
Polycyclic Aromatic Hydrocarbons										
Acenaphthene	83-32-9	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Acenaphthylene	208-96-8	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Acridine	260-94-6	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Anthracene	120-12-7	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Benz(a)anthracene	56-55-3	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Benzo(a)pyrene	50-32-8	E641A/VA	0.0050	µg/L	<0.0050	---	---	---	---	
Benzo(b+)fluoranthene	n/a	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	



Analytical Results

Sub-Matrix: Water					Client sample ID	W LNG EOP	----	----	----	----
(Matrix: Water)					Client sampling date / time	17-Jun-2024 15:45	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4143-001	-----	-----	-----	-----	
					Result	---	---	---	---	
Polycyclic Aromatic Hydrocarbons										
Benzo(b+j+k)fluoranthene	n/a	E641A/VA	0.015	µg/L	<0.015	---	---	---	---	
Benzo(g,h,i)perylene	191-24-2	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Benzo(k)fluoranthene	207-08-9	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Chrysene	218-01-9	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Dibenz(a,h)anthracene	53-70-3	E641A/VA	0.0050	µg/L	<0.0050	---	---	---	---	
Fluoranthene	206-44-0	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Fluorene	86-73-7	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Indeno(1,2,3-c,d)pyrene	193-39-5	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Methylnaphthalene, 1-	90-12-0	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Methylnaphthalene, 2-	91-57-6	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Naphthalene	91-20-3	E641A/VA	0.050	µg/L	0.056	---	---	---	---	
Phenanthrene	85-01-8	E641A/VA	0.020	µg/L	<0.020	---	---	---	---	
Pyrene	129-00-0	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Quinoline	91-22-5	E641A/VA	0.050	µg/L	<0.050	---	---	---	---	
Polycyclic Aromatic Hydrocarbons Surrogates										
Chrysene-d12	1719-03-5	E641A/VA	0.1	%	103	---	---	---	---	
Naphthalene-d8	1146-65-2	E641A/VA	0.1	%	106	---	---	---	---	
Phenanthrene-d10	1517-22-2	E641A/VA	0.1	%	110	---	---	---	---	
Glycols										
Diethylene glycol	111-46-6	E680E/VA	5.0	mg/L	<5.0	---	---	---	---	
Ethylene glycol	107-21-1	E680E/VA	5.0	mg/L	<5.0	---	---	---	---	
Propylene glycol, 1,2-	57-55-6	E680E/VA	5.0	mg/L	<5.0	---	---	---	---	
Triethylene glycol	112-27-6	E680E/VA	5.0	mg/L	<5.0	---	---	---	---	
Glycols, total (EG+DEG+PG)	----	E680E/VA	10	mg/L	<10	---	---	---	---	
Glycols Surrogates										
Propanediol, 1,3-	504-63-2	E680E/VA	1.0	%	103	---	---	---	---	

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

<p>Work Order : VA24B4143</p> <p>Client : Triton Environmental Consultants Ltd.</p> <p>Contact : [REDACTED]</p> <p>Address : [REDACTED]</p> <p>Telephone : [REDACTED]</p> <p>Project : 11964</p> <p>PO : 11964-Task 30-Phase 3C-4C</p> <p>C-O-C number : ----</p> <p>Sampler : ----</p> <p>Site : Water Analysis</p> <p>Quote number : VA23-TRIT100-012_V2</p> <p>No. of samples received : 1</p> <p>No. of samples analysed : 1</p>	<p>Page : 1 of 15</p> <p>Laboratory : ALS Environmental - Vancouver</p> <p>Account Manager : [REDACTED]</p> <p>Address : [REDACTED]</p> <p>Telephone : [REDACTED]</p> <p>Date Samples Received : 17-Jun-2024 18:30</p> <p>Issue Date : 19-Jun-2024 14:43</p>
---	---

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 Matrix Spike outliers occur.
- Laboratory Control Sample (LCS) 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)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.



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
Laboratory Control Sample (LCS) Recoveries								
Dissolved Metals	QC-1500072-002	----	Sulfur, dissolved	7704-34-9	E421	78.5 % ^{MES}	80.0-120%	Recovery less than lower control limit

Result Qualifiers

Qualifier	Description
MES	Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).



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 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		
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry											
Amber glass total (sulfuric acid) WLNG EOP	E562	17-Jun-2024	19-Jun-2024	28 days	2 days	✔	19-Jun-2024	28 days	2 days	✔	
Anions and Nutrients : Ammonia by Fluorescence											
Amber glass total (sulfuric acid) WLNG EOP	E298	17-Jun-2024	18-Jun-2024	28 days	1 days	✔	18-Jun-2024	28 days	1 days	✔	
Anions and Nutrients : Bromide in Water by IC (Low Level)											
HDPE WLNG EOP	E235.Br-L	17-Jun-2024	18-Jun-2024	28 days	1 days	✔	18-Jun-2024	28 days	1 days	✔	
Anions and Nutrients : Chloride in Water by IC											
HDPE WLNG EOP	E235.Cl	17-Jun-2024	18-Jun-2024	28 days	1 days	✔	18-Jun-2024	28 days	1 days	✔	
Anions and Nutrients : Fluoride in Water by IC											
HDPE WLNG EOP	E235.F	17-Jun-2024	18-Jun-2024	28 days	1 days	✔	18-Jun-2024	28 days	1 days	✔	
Anions and Nutrients : Nitrate in Water by IC (Low Level)											
HDPE WLNG EOP	E235.NO3-L	17-Jun-2024	18-Jun-2024	3 days	1 days	✔	18-Jun-2024	3 days	1 days	✔	
Anions and Nutrients : Nitrite in Water by IC (Low Level)											
HDPE WLNG EOP	E235.NO2-L	17-Jun-2024	18-Jun-2024	3 days	1 days	✔	18-Jun-2024	3 days	1 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	
Anions and Nutrients : Sulfate in Water by IC										
HDPE WLNG EOP	E235.SO4	17-Jun-2024	18-Jun-2024	28 days	1 days	✓	18-Jun-2024	28 days	1 days	✓
Anions and Nutrients : Total Nitrogen by Colourimetry										
Amber glass total (sulfuric acid) WLNG EOP	E366	17-Jun-2024	18-Jun-2024	28 days	1 days	✓	19-Jun-2024	28 days	2 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) WLNG EOP	E372-U	17-Jun-2024	18-Jun-2024	28 days	1 days	✓	19-Jun-2024	28 days	2 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial - dissolved (lab preserved) WLNG EOP	E509	17-Jun-2024	19-Jun-2024	28 days	2 days	✓	19-Jun-2024	28 days	2 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) WLNG EOP	E421	17-Jun-2024	18-Jun-2024	180 days	1 days	✓	18-Jun-2024	180 days	1 days	✓
Field Tests : Field pH,EC,Salinity, TDS, Cl2,CIO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial - total (lab preserved) WLNG EOP	EF001	17-Jun-2024	----	----	----		18-Jun-2024	----	1 days	
Glycols : Glycols (4 analytes) by GC-FID										
Glass vial WLNG EOP	E680E	17-Jun-2024	18-Jun-2024	7 days	1 days	✓	18-Jun-2024	40 days	0 days	✓
Hydrocarbons : BC PHCs - EPH by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate) WLNG EOP	E601A	17-Jun-2024	18-Jun-2024	14 days	1 days	✓	18-Jun-2024	40 days	0 days	✓
Hydrocarbons : VH and F1 by Headspace GC-FID										
Glass vial (sodium bisulfate) WLNG EOP	E581.VH+F1	17-Jun-2024	18-Jun-2024	14 days	1 days	✓	18-Jun-2024	14 days	1 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	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) WLNG EOP	E358-L	17-Jun-2024	18-Jun-2024	28 days	1 days	✔	18-Jun-2024	28 days	1 days	✔
Physical Tests : Alkalinity Species by Titration										
HDPE WLNG EOP	E290	17-Jun-2024	18-Jun-2024	14 days	1 days	✔	18-Jun-2024	14 days	1 days	✔
Physical Tests : TDS by Gravimetry										
HDPE WLNG EOP	E162	17-Jun-2024	----	----	----		18-Jun-2024	7 days	1 days	✔
Physical Tests : TSS by Gravimetry										
HDPE WLNG EOP	E160	17-Jun-2024	----	----	----		18-Jun-2024	7 days	1 days	✔
Polycyclic Aromatic Hydrocarbons : PAHs in Water by Hexane LVI GC-MS										
Amber glass/Teflon lined cap (sodium bisulfate) WLNG EOP	E641A	17-Jun-2024	18-Jun-2024	14 days	1 days	✔	18-Jun-2024	40 days	0 days	✔
Speciated Metals : Total Hexavalent Chromium (Cr VI) by IC										
UV-inhibited HDPE - total (sodium hydroxide) WLNG EOP	E532	17-Jun-2024	----	----	----		19-Jun-2024	28 days	2 days	✔
Total Metals : Total Mercury in Water by CVAAS										
Glass vial - total (lab preserved) WLNG EOP	E508	17-Jun-2024	19-Jun-2024	28 days	2 days	✔	19-Jun-2024	28 days	2 days	✔
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) WLNG EOP	E420	17-Jun-2024	18-Jun-2024	180 days	1 days	✔	18-Jun-2024	180 days	1 days	✔
Total Sulfides : Total Sulfide by Colourimetry (Automated Flow)										
HDPE total (zinc acetate+sodium hydroxide) WLNG EOP	E395	17-Jun-2024	----	----	----		18-Jun-2024	7 days	1 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	
Volatile Organic Compounds : VOCs (BC List) by Headspace GC-MS										
Glass vial (sodium bisulfate) WLNG EOP	E611C	17-Jun-2024	18-Jun-2024	14 days	1 days	✔	18-Jun-2024	14 days	1 days	✔

Legend & Qualifier Definitions

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 (%)		Evaluation
			QC	Regular	Actual	Expected	
Analytical Methods							
Laboratory Duplicates (DUP)							
Alkalinity Species by Titration	E290	1499945	0	1	0.0	5.0	✖
Ammonia by Fluorescence	E298	1499975	1	3	33.3	5.0	✔
Bromide in Water by IC (Low Level)	E235.Br-L	1499941	1	1	100.0	5.0	✔
Chloride in Water by IC	E235.Cl	1499940	1	1	100.0	5.0	✔
Dissolved Mercury in Water by CVAAS	E509	1501514	1	1	100.0	5.0	✔
Dissolved Metals in Water by CRC ICPMS	E421	1500072	1	6	16.6	5.0	✔
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1499976	1	1	100.0	5.0	✔
Fluoride in Water by IC	E235.F	1499939	1	1	100.0	5.0	✔
Glycols (4 analytes) by GC-FID	E680E	1500096	1	1	100.0	5.0	✔
Nitrate in Water by IC (Low Level)	E235.NO3-L	1499942	1	1	100.0	5.0	✔
Nitrite in Water by IC (Low Level)	E235.NO2-L	1499943	1	1	100.0	5.0	✔
Phenols (4AAP) in Water by Colorimetry	E562	1502035	1	4	25.0	5.0	✔
Sulfate in Water by IC	E235.SO4	1499944	1	1	100.0	5.0	✔
TDS by Gravimetry	E162	1500027	1	1	100.0	5.0	✔
Total Hexavalent Chromium (Cr VI) by IC	E532	1501567	1	5	20.0	5.0	✔
Total Mercury in Water by CVAAS	E508	1501503	1	1	100.0	5.0	✔
Total Metals in Water by CRC ICPMS	E420	1500068	1	6	16.6	5.0	✔
Total Nitrogen by Colourimetry	E366	1499973	1	4	25.0	5.0	✔
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1499974	1	4	25.0	5.0	✔
Total Sulfide by Colourimetry (Automated Flow)	E395	1500220	1	1	100.0	5.0	✔
TSS by Gravimetry	E160	1500033	1	1	100.0	5.0	✔
VH and F1 by Headspace GC-FID	E581.VH+F1	1500038	1	1	100.0	5.0	✔
VOCs (BC List) by Headspace GC-MS	E611C	1500039	1	1	100.0	5.0	✔
Laboratory Control Samples (LCS)							
Alkalinity Species by Titration	E290	1499945	1	1	100.0	5.0	✔
Ammonia by Fluorescence	E298	1499975	1	3	33.3	5.0	✔
BC PHCs - EPH by GC-FID	E601A	1499992	1	1	100.0	5.0	✔
Bromide in Water by IC (Low Level)	E235.Br-L	1499941	1	1	100.0	5.0	✔
Chloride in Water by IC	E235.Cl	1499940	1	1	100.0	5.0	✔
Dissolved Mercury in Water by CVAAS	E509	1501514	1	1	100.0	5.0	✔
Dissolved Metals in Water by CRC ICPMS	E421	1500072	1	6	16.6	5.0	✔
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1499976	1	1	100.0	5.0	✔
Fluoride in Water by IC	E235.F	1499939	1	1	100.0	5.0	✔
Glycols (4 analytes) by GC-FID	E680E	1500096	1	1	100.0	5.0	✔
Nitrate in Water by IC (Low Level)	E235.NO3-L	1499942	1	1	100.0	5.0	✔
Nitrite in Water by IC (Low Level)	E235.NO2-L	1499943	1	1	100.0	5.0	✔



Matrix: **Water**

Evaluation: * = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
<i>Analytical Methods</i>							
Laboratory Control Samples (LCS) - Continued							
PAHs in Water by Hexane LVI GC-MS	E641A	1499993	1	1	100.0	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	1502035	1	4	25.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1499944	1	1	100.0	5.0	✓
TDS by Gravimetry	E162	1500027	1	1	100.0	5.0	✓
Total Hexavalent Chromium (Cr VI) by IC	E532	1501567	1	5	20.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1501503	1	1	100.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1500068	1	6	16.6	5.0	✓
Total Nitrogen by Colourimetry	E366	1499973	1	4	25.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1499974	1	4	25.0	5.0	✓
Total Sulfide by Colourimetry (Automated Flow)	E395	1500220	1	1	100.0	5.0	✓
TSS by Gravimetry	E160	1500033	1	1	100.0	5.0	✓
VH and F1 by Headspace GC-FID	E581.VH+F1	1500038	1	1	100.0	5.0	✓
VOCs (BC List) by Headspace GC-MS	E611C	1500039	1	1	100.0	5.0	✓
Method Blanks (MB)							
Alkalinity Species by Titration	E290	1499945	1	1	100.0	5.0	✓
Ammonia by Fluorescence	E298	1499975	1	3	33.3	5.0	✓
BC PHCs - EPH by GC-FID	E601A	1499992	1	1	100.0	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	1499941	1	1	100.0	5.0	✓
Chloride in Water by IC	E235.Cl	1499940	1	1	100.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1501514	1	1	100.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1500072	1	6	16.6	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1499976	1	1	100.0	5.0	✓
Fluoride in Water by IC	E235.F	1499939	1	1	100.0	5.0	✓
Glycols (4 analytes) by GC-FID	E680E	1500096	1	1	100.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1499942	1	1	100.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1499943	1	1	100.0	5.0	✓
PAHs in Water by Hexane LVI GC-MS	E641A	1499993	1	1	100.0	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	1502035	1	4	25.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1499944	1	1	100.0	5.0	✓
TDS by Gravimetry	E162	1500027	1	1	100.0	5.0	✓
Total Hexavalent Chromium (Cr VI) by IC	E532	1501567	1	5	20.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1501503	1	1	100.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1500068	1	6	16.6	5.0	✓
Total Nitrogen by Colourimetry	E366	1499973	1	4	25.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1499974	1	4	25.0	5.0	✓
Total Sulfide by Colourimetry (Automated Flow)	E395	1500220	1	1	100.0	5.0	✓
TSS by Gravimetry	E160	1500033	1	1	100.0	5.0	✓
VH and F1 by Headspace GC-FID	E581.VH+F1	1500038	1	1	100.0	5.0	✓
VOCs (BC List) by Headspace GC-MS	E611C	1500039	1	1	100.0	5.0	✓



Matrix: **Water**

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

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
<i>Analytical Methods</i>							
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1499975	1	3	33.3	5.0	✔
Bromide in Water by IC (Low Level)	E235.Br-L	1499941	0	1	0.0	5.0	✖
Chloride in Water by IC	E235.Cl	1499940	0	1	0.0	5.0	✖
Dissolved Mercury in Water by CVAAS	E509	1501514	0	1	0.0	5.0	✖
Dissolved Metals in Water by CRC ICPMS	E421	1500072	1	6	16.6	5.0	✔
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1499976	0	1	0.0	5.0	✖
Fluoride in Water by IC	E235.F	1499939	0	1	0.0	5.0	✖
Nitrate in Water by IC (Low Level)	E235.NO3-L	1499942	0	1	0.0	5.0	✖
Nitrite in Water by IC (Low Level)	E235.NO2-L	1499943	0	1	0.0	5.0	✖
Phenols (4AAP) in Water by Colorimetry	E562	1502035	1	4	25.0	5.0	✔
Sulfate in Water by IC	E235.SO4	1499944	0	1	0.0	5.0	✖
Total Hexavalent Chromium (Cr VI) by IC	E532	1501567	1	5	20.0	5.0	✔
Total Mercury in Water by CVAAS	E508	1501503	0	1	0.0	5.0	✖
Total Metals in Water by CRC ICPMS	E420	1500068	1	6	16.6	5.0	✔
Total Nitrogen by Colourimetry	E366	1499973	1	4	25.0	5.0	✔
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1499974	1	4	25.0	5.0	✔
Total Sulfide by Colourimetry (Automated Flow)	E395	1500220	0	1	0.0	5.0	✖
VH and F1 by Headspace GC-FID	E581.VH+F1	1500038	0	1	0.0	5.0	✖
VOCs (BC List) by Headspace GC-MS	E611C	1500039	1	1	100.0	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
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.
Bromide in Water by IC (Low Level)	E235.Br-L 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 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 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 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 ALS Environmental - Vancouver	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 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 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.



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
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)
Dissolved Organic Carbon by Combustion (Low Level)	E358-L 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 ₂ . 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 Nitrogen by Colourimetry	E366 ALS Environmental - Vancouver	Water	Chinchilla Scientific Nitrate Method, 2011	Following digestion, total nitrogen is determined colourimetrically using a discrete analyzer utilizing the vanadium chloride reduction method. This method of analysis is approved under US EPA 40 CFR Part 136 (May 2021).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U 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 Sulfide by Colourimetry (Automated Flow)	E395 ALS Environmental - Vancouver	Water	APHA 4500 -S E-Auto-Colorimetry	Sulfide is determined using the gas dialysis automated methylene blue colourimetric method. Results expressed "as H ₂ S" if reported represent the maximum possible H ₂ S concentration based on the total sulfide concentration in the sample. The H ₂ S calculation converts Total Sulphide as (S ₂ ⁻) and reports it as Total Sulphide as (H ₂ S)
Total Metals in Water by CRC ICPMS	E420 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. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Metals in Water by CRC ICPMS	E421 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. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Mercury in Water by CVAAS	E508 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 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.



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Total Hexavalent Chromium (Cr VI) by IC	E532 ALS Environmental - Waterloo	Water	APHA 3500-Cr C (Ion Chromatography)	Hexavalent Chromium is measured by Ion chromatography-Post column reaction and UV detection. Results are based on an un-filtered, field-preserved sample.
Phenols (4AAP) in Water by Colorimetry	E562 ALS Environmental - Edmonton	Water	EPA 9066	This automated method is based on the distillation of phenol and subsequent reaction of the distillate with alkaline ferricyanide (K ₃ Fe(CN) ₆) and 4-amino-antipyrine (4-AAP) to form a red complex which is measured colorimetrically.
VH and F1 by Headspace GC-FID	E581.VH+F1 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. 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 ALS Environmental - Vancouver	Water	BC MOE Lab Manual	Sample extracts are analyzed by GC-FID for BC hydrocarbon fractions.
VOCs (BC List) by Headspace GC-MS	E611C 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. Total Xylenes is the sum of m,p-Xylene & o-Xylene. Total BTEX is the sum of Benzene, Toluene, Ethylbenzene, & Total Xylenes. Total BTEX+Styrene is the sum of Total BTEX & Styrene. Total Trihalomethanes [THMs] is the sum of Bromodichloromethane, Bromoform, Chloroform, & Dibromochloromethane.
PAHs in Water by Hexane LVI GC-MS	E641A ALS Environmental - Vancouver	Water	EPA 8270E (mod)	Polycyclic Aromatic Hydrocarbons (PAHs) are analyzed by large volume injection (LVI) GC-MS.
Glycols (4 analytes) by GC-FID	E680E ALS Environmental - Vancouver	Water	EPA 8015D (mod)	Derivatized glycols are analyzed by GC-FID.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Vancouver	Water	APHA 2340B	"Hardness (as CaCO ₃), dissolved" is calculated from the sum of dissolved 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.



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
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.
Un-ionized Total Hydrogen Sulfide (calculated)	EC395 ALS Environmental - Vancouver	Water	APHA 4500 -S H	Un-ionized sulfide is calculated using results from total sulfide analysis, pH, temperature, and ionic strength of the sample. Calculation of un-ionized sulfide using total sulfide concentrations may be biased high due to particulate forms of sulfide measured during total sulfide testing.
Total Trivalent Chromium (Cr III) by Calculation	EC535 ALS Environmental - Waterloo	Water	APHA 3030B/6020A/EPA 7196A (mod)	Chromium (III)-Total is calculated as the difference between the total chromium and the total hexavalent chromium (Cr(VI)) results. The Limit of Reporting for Chromium (III) varies as a function of the test results.
VPH: VH-BTEX-Styrene	EC580A ALS Environmental - Vancouver	Water	BC MOE Lab Manual (VPH in Water and Solids) (mod)	Volatile Petroleum Hydrocarbons (VPH) is calculated as follows: VPHw = Volatile Hydrocarbons (VH C6-C10) minus benzene, toluene, ethylbenzene, xylenes (BTEX) and styrene.
LEPH and HEPH: EPH-PAH	EC600A ALS Environmental - Vancouver	Water	BC MOE Lab Manual (LEPH and HEPH)	Light Extractable Petroleum Hydrocarbons (LEPH) and Heavy Extractable Petroleum Hydrocarbons (HEPH) are calculated as follows: LEPH = Extractable Petroleum Hydrocarbons (EPH10-19) minus Acenaphthene, Acridine, Anthracene, Fluorene, Naphthalene and Phenanthrene; HEPH = Extractable Petroleum Hydrocarbons (EPH19-32) minus Benz(a)anthracene, Benzo(a)pyrene, Fluoranthene, and Pyrene.
Field pH,EC,Salinity, TDS, Cl ₂ ,ClO ₂ ,ORP,DO, Turbidity,T,T-P,o-PO ₄ ,NH ₃ ,Chloramine	EF001 ALS Environmental - Vancouver	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl ₂ ,ClO ₂ ,ORP,DO, Turbidity,T,T-P,o-PO ₄ ,NH ₃ or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

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.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Vancouver	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Nitrogen in water	EP366 ALS Environmental - Vancouver	Water	APHA 4500-P J (mod)	Samples for total nitrogen analysis are digested using a heated persulfate digestion. Nitrogen compounds are converted to nitrate in this digestion.
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Vancouver	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.



<i>Preparation Methods</i>	<i>Method / Lab</i>	<i>Matrix</i>	<i>Method Reference</i>	<i>Method Descriptions</i>
Dissolved Metals Water Filtration	EP421 ALS Environmental - Vancouver	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Vancouver	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.
VOCs Preparation for Headspace Analysis	EP581 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 the GC/MS-FID system.
PHCs and PAHs Hexane Extraction	EP601 ALS Environmental - Vancouver	Water	EPA 3511 (mod)	Petroleum Hydrocarbons (PHCs) and Polycyclic Aromatic Hydrocarbons (PAHs) are extracted using a hexane liquid-liquid extraction.
Glycols Extraction and Derivatization (BC Only)	EP680E ALS Environmental - Vancouver	Water	EPA 8015D (mod)	Aqueous sample is derivatized and extracted with organic solvent.

QUALITY CONTROL REPORT

Work Order : **VA24B4143**

Client : Triton Environmental Consultants Ltd.

Contact : [Redacted]

Address : [Redacted]

Telephone : [Redacted]

Project : 11964

PO : 11964-Task 30-Phase 3C-4C

C-O-C number : ----

Sampler : ----

Site : Water Analysis

Quote number : VA23-TRIT100-012_V2

No. of samples received : 1

No. of samples analysed : 1

Page : 1 of 23

Laboratory : ALS Environmental - Vancouver

Account Manager : [Redacted]

Address : [Redacted]

Telephone : [Redacted]

Date Samples Received : 17-Jun-2024 18:30

Date Analysis Commenced : 18-Jun-2024

Issue Date : 19-Jun-2024 14:43

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
[Redacted]	Analyst	Vancouver Inorganics, Burnaby, British Columbia
	Laboratory Analyst	Edmonton Inorganics, Edmonton, Alberta
		Vancouver Metals, Burnaby, British Columbia
	Analyst	Vancouver Metals, Burnaby, British Columbia
	Manager - Inorganics	Waterloo Inorganics, Waterloo, Ontario
	Manager - Inorganics	Waterloo Metals, Waterloo, Ontario
	Department Manager - Inorganics	Vancouver Inorganics, Burnaby, British Columbia
	Lab Assistant	Vancouver Inorganics, Burnaby, British Columbia
	Account Manager Assistant	Vancouver Administration, Burnaby, British Columbia
	Team Leader - Organics	Vancouver Inorganics, Burnaby, British Columbia
	Team Leader - Organics	Vancouver Organics, Burnaby, British Columbia
	Analyst	Vancouver Metals, Burnaby, British Columbia
	Supervisor - Water Quality Instrumentation	Vancouver Inorganics, Burnaby, British Columbia



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: 1500027)											
VA24B4143-001	WLNG EOP	Solids, total dissolved [TDS]	----	E162	20	mg/L	166	168	2	Diff <2x LOR	----
Physical Tests (QC Lot: 1500033)											
VA24B4143-001	WLNG EOP	Solids, total suspended [TSS]	----	E160	3.0	mg/L	<3.0	<3.0	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1499939)											
VA24B4143-001	WLNG EOP	Fluoride	16984-48-8	E235.F	0.020	mg/L	0.477	0.463	3.00%	20%	----
Anions and Nutrients (QC Lot: 1499940)											
VA24B4143-001	WLNG EOP	Chloride	16887-00-6	E235.Cl	0.50	mg/L	16.2	16.0	1.40%	20%	----
Anions and Nutrients (QC Lot: 1499941)											
VA24B4143-001	WLNG EOP	Bromide	24959-67-9	E235.Br-L	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1499942)											
VA24B4143-001	WLNG EOP	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: 1499943)											
VA24B4143-001	WLNG EOP	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: 1499944)											
VA24B4143-001	WLNG EOP	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	7.63	7.46	2.29%	20%	----
Anions and Nutrients (QC Lot: 1499973)											
VA24B3363-001	Anonymous	Nitrogen, total	7727-37-9	E366	0.030	mg/L	0.278	0.277	0.0008	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1499974)											
VA24B3363-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0107	0.0111	0.0004	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1499975)											
VA24B3435-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0414	0.0388	0.0026	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1499976)											
VA24B4143-001	WLNG EOP	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	4.74	5.11	0.37	Diff <2x LOR	----
Total Sulfides (QC Lot: 1500220)											
VA24B4143-001	WLNG EOP	Sulfide, total (as S)	18496-25-8	E395	0.0015	mg/L	0.0018	0.0023	0.0005	Diff <2x LOR	----
Total Metals (QC Lot: 1500068)											
VA24B4178-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0293	0.0304	0.0011	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00010	0.00012	0.00002	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00057	0.00056	0.00002	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0464	0.0464	0.0871%	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 (QC Lot: 1500068) - continued											
VA24B4178-001	Anonymous	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	0.029	0.028	0.0003	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	79.3	78.4	1.12%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000521	0.000534	2.43%	20%	----
		Chromium, total	7440-47-3	E420	0.000050	mg/L	<0.000050	<0.000050	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	0.000050	mg/L	0.00432	0.00423	0.00010	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.049	0.051	0.002	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000151	0.000149	0.000002	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0036	0.0036	0.000005	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	23.9	23.2	3.01%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0159	0.0157	1.60%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	2.09	2.10	0.464%	20%	----
		Nickel, total	7440-02-0	E420	0.000050	mg/L	<0.000050	<0.000050	0	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	12.4	12.6	1.10%	20%	----
		Rubidium, total	7440-17-7	E420	0.000020	mg/L	0.00729	0.00692	5.31%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.00784	0.00809	3.17%	20%	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	4.08	3.98	2.38%	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	57.6	56.0	2.87%	20%	----
		Strontium, total	7440-24-6	E420	0.000020	mg/L	1.44	1.50	3.63%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	84.5	85.7	1.46%	20%	----
		Tellurium, total	13494-80-9	E420	0.000020	mg/L	0.00024	0.00027	0.00003	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	0.00021	0.00023	0.00002	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.00904	0.00930	2.84%	20%	----
		Vanadium, total	7440-62-2	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
Total Metals (QC Lot: 1501503)											
VA24B4143-001	WLNG EOP	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	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: 1500072)											
VA24B4178-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	<0.0010	0.0012	0.0002	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	0.00049	0.00048	0.000008	Diff <2x LOR	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0462	0.0465	0.657%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	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	0.027	0.027	0.0004	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	75.4	77.6	2.87%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	0.000502	0.000510	1.55%	20%	----
		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	0.00290	0.00293	1.01%	20%	----
		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	0.0036	0.0035	0.00007	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	22.9	22.7	0.660%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00726	0.00734	1.13%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	2.05	2.06	0.555%	20%	----
		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	12.1	12.1	0.463%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00720	0.00712	1.02%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.00816	0.00865	5.85%	20%	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	3.85	3.82	0.705%	20%	----
		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	54.7	56.2	2.67%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	1.43	1.46	1.82%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	83.6	81.8	2.10%	20%	----
		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	0.00093	0.00092	0.00001	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	0.00020	0.00020	0.000002	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: 1500072) - continued											
VA24B4178-001	Anonymous	Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.00873	0.00878	0.544%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.000050	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	----
		Zirconium, dissolved	7440-67-7	E421	0.000030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1501514)											
VA24B4143-001	WLNG EOP	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Speciated Metals (QC Lot: 1501567)											
VA24B4143-001	WLNG EOP	Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.00050	mg/L	0.00052	0.00055	0.00004	Diff <2x LOR	----
Aggregate Organics (QC Lot: 1502035)											
VA24B4143-001	WLNG EOP	Phenols, total (4AAP)	----	E562	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Volatile Organic Compounds (QC Lot: 1500039)											
VA24B4143-001	WLNG EOP	Benzene	71-43-2	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Bromodichloromethane	75-27-4	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Bromoform	75-25-2	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Carbon tetrachloride	56-23-5	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chlorobenzene	108-90-7	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chloroethane	75-00-3	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chloroform	67-66-3	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chloromethane	74-87-3	E611C	5.0	µg/L	<5.0	<5.0	0	Diff <2x LOR	----
		Dibromochloromethane	124-48-1	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorobenzene, 1,2-	95-50-1	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorobenzene, 1,3-	541-73-1	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorobenzene, 1,4-	106-46-7	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethane, 1,1-	75-34-3	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethane, 1,2-	107-06-2	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethylene, 1,1-	75-35-4	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethylene, cis-1,2-	156-59-2	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethylene, trans-1,2-	156-60-5	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloromethane	75-09-2	E611C	1.0	µg/L	<1.0	<1.0	0	Diff <2x LOR	----
		Dichloropropane, 1,2-	78-87-5	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloropropylene, cis-1,3-	10061-01-5	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloropropylene, trans-1,3-	10061-02-6	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Ethylbenzene	100-41-4	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611C	0.50	µg/L	<0.50	<0.50	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
Volatile Organic Compounds (QC Lot: 1500039) - continued											
VA24B4143-001	WLNG EOP	Styrene	100-42-5	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethane, 1,1,1,2-	630-20-6	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethane, 1,1,2,2-	79-34-5	E611C	0.20	µg/L	<0.20	<0.20	0	Diff <2x LOR	----
		Tetrachloroethylene	127-18-4	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Toluene	108-88-3	E611C	0.40	µg/L	<0.40	<0.40	0	Diff <2x LOR	----
		Trichloroethane, 1,1,1-	71-55-6	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichloroethane, 1,1,2-	79-00-5	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichloroethylene	79-01-6	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichlorofluoromethane	75-69-4	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Vinyl chloride	75-01-4	E611C	0.40	µg/L	<0.40	<0.40	0	Diff <2x LOR	----
		Xylene, m+p-	179601-23-1	E611C	0.40	µg/L	<0.40	<0.40	0	Diff <2x LOR	----
		Xylene, o-	95-47-6	E611C	0.30	µg/L	<0.30	<0.30	0	Diff <2x LOR	----
Hydrocarbons (QC Lot: 1500038)											
VA24B4143-001	WLNG EOP	VHw (C6-C10)	----	E581.VH+F1	100	µg/L	<100	<100	0.0%	30%	----
Glycols (QC Lot: 1500096)											
VA24B4143-001	WLNG EOP	Diethylene glycol	111-46-6	E680E	5.0	mg/L	<5.0	<5.0	0	Diff <2x LOR	----
		Ethylene glycol	107-21-1	E680E	5.0	mg/L	<5.0	<5.0	0	Diff <2x LOR	----
		Propylene glycol, 1,2-	57-55-6	E680E	5.0	mg/L	<5.0	<5.0	0	Diff <2x LOR	----
		Triethylene glycol	112-27-6	E680E	5.0	mg/L	<5.0	<5.0	0	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: 1499945)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1500027)						
Solids, total dissolved [TDS]	----	E162	10	mg/L	<10	----
Physical Tests (QCLot: 1500033)						
Solids, total suspended [TSS]	----	E160	3	mg/L	<3.0	----
Anions and Nutrients (QCLot: 1499939)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 1499940)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 1499941)						
Bromide	24959-67-9	E235.Br-L	0.05	mg/L	<0.050	----
Anions and Nutrients (QCLot: 1499942)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1499943)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1499944)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1499973)						
Nitrogen, total	7727-37-9	E366	0.03	mg/L	<0.030	----
Anions and Nutrients (QCLot: 1499974)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1499975)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Organic / Inorganic Carbon (QCLot: 1499976)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Sulfides (QCLot: 1500220)						
Sulfide, total (as S)	18496-25-8	E395	0.0015	mg/L	<0.0015	----
Total Metals (QCLot: 1500068)						
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	----



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1500068) - continued						
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	----
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	----



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1501503)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1500072)						
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	----
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	----



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1500072) - continued						
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	----
Dissolved Metals (QCLot: 1501514)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Speciated Metals (QCLot: 1501567)						
Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.0005	mg/L	<0.00050	----
Aggregate Organics (QCLot: 1502035)						
Phenols, total (4AAP)	----	E562	0.001	mg/L	<0.0010	----
Volatile Organic Compounds (QCLot: 1500039)						
Benzene	71-43-2	E611C	0.5	µg/L	<0.50	----
Bromodichloromethane	75-27-4	E611C	0.5	µg/L	<0.50	----
Bromoform	75-25-2	E611C	0.5	µg/L	<0.50	----
Carbon tetrachloride	56-23-5	E611C	0.5	µg/L	<0.50	----
Chlorobenzene	108-90-7	E611C	0.5	µg/L	<0.50	----
Chloroethane	75-00-3	E611C	0.5	µg/L	<0.50	----
Chloroform	67-66-3	E611C	0.5	µg/L	<0.50	----
Chloromethane	74-87-3	E611C	5	µg/L	<5.0	----
Dibromochloromethane	124-48-1	E611C	0.5	µg/L	<0.50	----
Dichlorobenzene, 1,2-	95-50-1	E611C	0.5	µg/L	<0.50	----
Dichlorobenzene, 1,3-	541-73-1	E611C	0.5	µg/L	<0.50	----
Dichlorobenzene, 1,4-	106-46-7	E611C	0.5	µg/L	<0.50	----
Dichloroethane, 1,1-	75-34-3	E611C	0.5	µg/L	<0.50	----
Dichloroethane, 1,2-	107-06-2	E611C	0.5	µg/L	<0.50	----
Dichloroethylene, 1,1-	75-35-4	E611C	0.5	µg/L	<0.50	----
Dichloroethylene, cis-1,2-	156-59-2	E611C	0.5	µg/L	<0.50	----
Dichloroethylene, trans-1,2-	156-60-5	E611C	0.5	µg/L	<0.50	----
Dichloromethane	75-09-2	E611C	1	µg/L	<1.0	----
Dichloropropane, 1,2-	78-87-5	E611C	0.5	µg/L	<0.50	----
Dichloropropylene, cis-1,3-	10061-01-5	E611C	0.5	µg/L	<0.50	----
Dichloropropylene, trans-1,3-	10061-02-6	E611C	0.5	µg/L	<0.50	----
Ethylbenzene	100-41-4	E611C	0.5	µg/L	<0.50	----



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Volatile Organic Compounds (QCLot: 1500039) - continued						
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611C	0.5	µg/L	<0.50	----
Styrene	100-42-5	E611C	0.5	µg/L	<0.50	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611C	0.5	µg/L	<0.50	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611C	0.2	µg/L	<0.20	----
Tetrachloroethylene	127-18-4	E611C	0.5	µg/L	<0.50	----
Toluene	108-88-3	E611C	0.4	µg/L	<0.40	----
Trichloroethane, 1,1,1-	71-55-6	E611C	0.5	µg/L	<0.50	----
Trichloroethane, 1,1,2-	79-00-5	E611C	0.5	µg/L	<0.50	----
Trichloroethylene	79-01-6	E611C	0.5	µg/L	<0.50	----
Trichlorofluoromethane	75-69-4	E611C	0.5	µg/L	<0.50	----
Vinyl chloride	75-01-4	E611C	0.4	µg/L	<0.40	----
Xylene, m+p-	179601-23-1	E611C	0.4	µg/L	<0.40	----
Xylene, o-	95-47-6	E611C	0.3	µg/L	<0.30	----
Hydrocarbons (QCLot: 1499992)						
EPH (C10-C19)	----	E601A	250	µg/L	<250	----
EPH (C19-C32)	----	E601A	250	µg/L	<250	----
Hydrocarbons (QCLot: 1500038)						
VHw (C6-C10)	----	E581.VH+F1	100	µg/L	<100	----
Polycyclic Aromatic Hydrocarbons (QCLot: 1499993)						
Acenaphthene	83-32-9	E641A	0.01	µg/L	<0.010	----
Acenaphthylene	208-96-8	E641A	0.01	µg/L	<0.010	----
Acridine	260-94-6	E641A	0.01	µg/L	<0.010	----
Anthracene	120-12-7	E641A	0.01	µg/L	<0.010	----
Benz(a)anthracene	56-55-3	E641A	0.01	µg/L	<0.010	----
Benzo(a)pyrene	50-32-8	E641A	0.005	µg/L	<0.0050	----
Benzo(b+j)fluoranthene	n/a	E641A	0.01	µg/L	<0.010	----
Benzo(g,h,i)perylene	191-24-2	E641A	0.01	µg/L	<0.010	----
Benzo(k)fluoranthene	207-08-9	E641A	0.01	µg/L	<0.010	----
Chrysene	218-01-9	E641A	0.01	µg/L	<0.010	----
Dibenz(a,h)anthracene	53-70-3	E641A	0.005	µg/L	<0.0050	----
Fluoranthene	206-44-0	E641A	0.01	µg/L	<0.010	----
Fluorene	86-73-7	E641A	0.01	µg/L	<0.010	----
Indeno(1,2,3-c,d)pyrene	193-39-5	E641A	0.01	µg/L	<0.010	----
Methylnaphthalene, 1-	90-12-0	E641A	0.01	µg/L	<0.010	----
Methylnaphthalene, 2-	91-57-6	E641A	0.01	µg/L	<0.010	----



Sub-Matrix: **Water**

<i>Analyte</i>	<i>CAS Number</i>	<i>Method</i>	<i>LOR</i>	<i>Unit</i>	<i>Result</i>	<i>Qualifier</i>
Polycyclic Aromatic Hydrocarbons (QCLot: 1499993) - continued						
Naphthalene	91-20-3	E641A	0.05	µg/L	<0.050	----
Phenanthrene	85-01-8	E641A	0.02	µg/L	<0.020	----
Pyrene	129-00-0	E641A	0.01	µg/L	<0.010	----
Quinoline	91-22-5	E641A	0.05	µg/L	<0.050	----
Glycols (QCLot: 1500096)						
Diethylene glycol	111-46-6	E680E	5	mg/L	<5.0	----
Ethylene glycol	107-21-1	E680E	5	mg/L	<5.0	----
Propylene glycol, 1,2-	57-55-6	E680E	5	mg/L	<5.0	----
Triethylene glycol	112-27-6	E680E	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: 1499945)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	500 mg/L	109	85.0	115	----
Physical Tests (QCLot: 1500027)									
Solids, total dissolved [TDS]	----	E162	10	mg/L	1000 mg/L	97.2	85.0	115	----
Physical Tests (QCLot: 1500033)									
Solids, total suspended [TSS]	----	E160	3	mg/L	150 mg/L	102	85.0	115	----
Anions and Nutrients (QCLot: 1499939)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1499940)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1499941)									
Bromide	24959-67-9	E235.Br-L	0.05	mg/L	0.5 mg/L	103	85.0	115	----
Anions and Nutrients (QCLot: 1499942)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	99.8	90.0	110	----
Anions and Nutrients (QCLot: 1499943)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	104	90.0	110	----
Anions and Nutrients (QCLot: 1499944)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1499973)									
Nitrogen, total	7727-37-9	E366	0.03	mg/L	0.5 mg/L	95.5	75.0	125	----
Anions and Nutrients (QCLot: 1499974)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.05 mg/L	112	80.0	120	----
Anions and Nutrients (QCLot: 1499975)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	109	85.0	115	----
Organic / Inorganic Carbon (QCLot: 1499976)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	115	80.0	120	----
Total Sulfides (QCLot: 1500220)									
Sulfide, total (as S)	18496-25-8	E395	0.0015	mg/L	0.08 mg/L	112	80.0	120	----
Total Metals (QCLot: 1500068)									



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: 1500068) - continued									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	97.3	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	104	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	102	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	99.2	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	101	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	104	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	98.1	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	99.8	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	99.5	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	104	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	102	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	100.0	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	99.4	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	99.8	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	103	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	101	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	101	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	96.4	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	106	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	99.4	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	98.3	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	106	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	98.1	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	98.2	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	106	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	95.3	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	110	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	98.4	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	100	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	103	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	97.9	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	102	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	98.6	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	101	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 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: 1500068) - continued									
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	102	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	98.9	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	93.7	80.0	120	----
Total Metals (QCLot: 1501503)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	100	80.0	120	----
Dissolved Metals (QCLot: 1500072)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	94.4	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	97.9	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	101	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	96.8	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	96.0	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	99.5	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	99.1	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	101	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	97.9	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	99.6	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	99.2	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	99.4	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	99.4	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	95.6	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	98.9	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	96.5	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	99.0	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	96.7	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	107	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	99.1	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	106	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	103	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	100	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	102	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	99.8	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	92.0	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	108	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	96.9	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	# 78.5	80.0	120	MES



Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1500072) - continued									
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	103	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	101	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	94.7	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	98.0	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	99.5	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	97.7	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	100	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	100	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	99.8	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	91.4	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	99.1	80.0	120	----
Speciated Metals (QCLot: 1501567)									
Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.0005	mg/L	0.025 mg/L	97.6	80.0	120	----
Aggregate Organics (QCLot: 1502035)									
Phenols, total (4AAP)	----	E562	0.001	mg/L	0.02 mg/L	103	85.0	115	----
Volatile Organic Compounds (QCLot: 1500039)									
Benzene	71-43-2	E611C	0.5	µg/L	100 µg/L	107	70.0	130	----
Bromodichloromethane	75-27-4	E611C	0.5	µg/L	100 µg/L	100	70.0	130	----
Bromoform	75-25-2	E611C	0.5	µg/L	100 µg/L	97.6	70.0	130	----
Carbon tetrachloride	56-23-5	E611C	0.5	µg/L	100 µg/L	98.1	70.0	130	----
Chlorobenzene	108-90-7	E611C	0.5	µg/L	100 µg/L	106	70.0	130	----
Chloroethane	75-00-3	E611C	0.5	µg/L	100 µg/L	126	60.0	140	----
Chloroform	67-66-3	E611C	0.5	µg/L	100 µg/L	103	70.0	130	----
Chloromethane	74-87-3	E611C	5	µg/L	100 µg/L	100	60.0	140	----
Dibromochloromethane	124-48-1	E611C	0.5	µg/L	100 µg/L	98.5	70.0	130	----
Dichlorobenzene, 1,2-	95-50-1	E611C	0.5	µg/L	100 µg/L	104	70.0	130	----
Dichlorobenzene, 1,3-	541-73-1	E611C	0.5	µg/L	100 µg/L	107	70.0	130	----
Dichlorobenzene, 1,4-	106-46-7	E611C	0.5	µg/L	100 µg/L	109	70.0	130	----
Dichloroethane, 1,1-	75-34-3	E611C	0.5	µg/L	100 µg/L	108	70.0	130	----
Dichloroethane, 1,2-	107-06-2	E611C	0.5	µg/L	100 µg/L	104	70.0	130	----
Dichloroethylene, 1,1-	75-35-4	E611C	0.5	µg/L	100 µg/L	104	70.0	130	----
Dichloroethylene, cis-1,2-	156-59-2	E611C	0.5	µg/L	100 µg/L	103	70.0	130	----
Dichloroethylene, trans-1,2-	156-60-5	E611C	0.5	µg/L	100 µg/L	110	70.0	130	----



Sub-Matrix: **Water**

Laboratory Control Sample (LCS) Report

Analyte	CAS Number	Method	LOR	Unit	Spike		Recovery (%)		Recovery Limits (%)		Qualifier
					Target Concentration	LCS	Low	High			
Volatile Organic Compounds (QCLot: 1500039) - continued											
Dichloromethane	75-09-2	E611C	1	µg/L	100 µg/L	109	70.0	130	---		
Dichloropropane, 1,2-	78-87-5	E611C	0.5	µg/L	100 µg/L	109	70.0	130	---		
Dichloropropylene, cis-1,3-	10061-01-5	E611C	0.5	µg/L	100 µg/L	93.7	70.0	130	---		
Dichloropropylene, trans-1,3-	10061-02-6	E611C	0.5	µg/L	100 µg/L	89.8	70.0	130	---		
Ethylbenzene	100-41-4	E611C	0.5	µg/L	100 µg/L	96.4	70.0	130	---		
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611C	0.5	µg/L	100 µg/L	115	70.0	130	---		
Styrene	100-42-5	E611C	0.5	µg/L	100 µg/L	101	70.0	130	---		
Tetrachloroethane, 1,1,1,2-	630-20-6	E611C	0.5	µg/L	100 µg/L	95.4	70.0	130	---		
Tetrachloroethane, 1,1,2,2-	79-34-5	E611C	0.2	µg/L	100 µg/L	102	70.0	130	---		
Tetrachloroethylene	127-18-4	E611C	0.5	µg/L	100 µg/L	106	70.0	130	---		
Toluene	108-88-3	E611C	0.4	µg/L	100 µg/L	103	70.0	130	---		
Trichloroethane, 1,1,1-	71-55-6	E611C	0.5	µg/L	100 µg/L	96.1	70.0	130	---		
Trichloroethane, 1,1,2-	79-00-5	E611C	0.5	µg/L	100 µg/L	100	70.0	130	---		
Trichloroethylene	79-01-6	E611C	0.5	µg/L	100 µg/L	101	70.0	130	---		
Trichlorofluoromethane	75-69-4	E611C	0.5	µg/L	100 µg/L	117	60.0	140	---		
Vinyl chloride	75-01-4	E611C	0.4	µg/L	100 µg/L	105	60.0	140	---		
Xylene, m+p-	179601-23-1	E611C	0.4	µg/L	200 µg/L	109	70.0	130	---		
Xylene, o-	95-47-6	E611C	0.3	µg/L	100 µg/L	97.2	70.0	130	---		
Hydrocarbons (QCLot: 1499992)											
EPH (C10-C19)	---	E601A	250	µg/L	6490 µg/L	112	70.0	130	---		
EPH (C19-C32)	---	E601A	250	µg/L	3360 µg/L	111	70.0	130	---		
Hydrocarbons (QCLot: 1500038)											
VHw (C6-C10)	---	E581.VH+F1	100	µg/L	6310 µg/L	98.3	70.0	130	---		
Polycyclic Aromatic Hydrocarbons (QCLot: 1499993)											
Acenaphthene	83-32-9	E641A	0.01	µg/L	0.5 µg/L	123	60.0	130	---		
Acenaphthylene	208-96-8	E641A	0.01	µg/L	0.5 µg/L	121	60.0	130	---		
Acridine	260-94-6	E641A	0.01	µg/L	0.5 µg/L	101	60.0	130	---		
Anthracene	120-12-7	E641A	0.01	µg/L	0.5 µg/L	117	60.0	130	---		
Benz(a)anthracene	56-55-3	E641A	0.01	µg/L	0.5 µg/L	98.0	60.0	130	---		
Benzo(a)pyrene	50-32-8	E641A	0.005	µg/L	0.5 µg/L	109	60.0	130	---		
Benzo(b+j)fluoranthene	n/a	E641A	0.01	µg/L	0.5 µg/L	114	60.0	130	---		
Benzo(g,h,i)perylene	191-24-2	E641A	0.01	µg/L	0.5 µg/L	127	60.0	130	---		
Benzo(k)fluoranthene	207-08-9	E641A	0.01	µg/L	0.5 µg/L	110	60.0	130	---		
Chrysene	218-01-9	E641A	0.01	µg/L	0.5 µg/L	110	60.0	130	---		



Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Polycyclic Aromatic Hydrocarbons (QCLot: 1499993) - continued									
Dibenz(a,h)anthracene	53-70-3	E641A	0.005	µg/L	0.5 µg/L	118	60.0	130	----
Fluoranthene	206-44-0	E641A	0.01	µg/L	0.5 µg/L	115	60.0	130	----
Fluorene	86-73-7	E641A	0.01	µg/L	0.5 µg/L	110	60.0	130	----
Indeno(1,2,3-c,d)pyrene	193-39-5	E641A	0.01	µg/L	0.5 µg/L	128	60.0	130	----
Methylnaphthalene, 1-	90-12-0	E641A	0.01	µg/L	0.5 µg/L	111	60.0	130	----
Methylnaphthalene, 2-	91-57-6	E641A	0.01	µg/L	0.5 µg/L	123	60.0	130	----
Naphthalene	91-20-3	E641A	0.05	µg/L	0.5 µg/L	115	50.0	130	----
Phenanthrene	85-01-8	E641A	0.02	µg/L	0.5 µg/L	114	60.0	130	----
Pyrene	129-00-0	E641A	0.01	µg/L	0.5 µg/L	114	60.0	130	----
Quinoline	91-22-5	E641A	0.05	µg/L	0.5 µg/L	103	60.0	130	----
Glycols (QCLot: 1500096)									
Diethylene glycol	111-46-6	E680E	5	mg/L	25 mg/L	103	70.0	130	----
Ethylene glycol	107-21-1	E680E	5	mg/L	25 mg/L	103	70.0	130	----
Propylene glycol, 1,2-	57-55-6	E680E	5	mg/L	25 mg/L	96.5	70.0	130	----
Triethylene glycol	112-27-6	E680E	5	mg/L	25 mg/L	103	70.0	130	----

Qualifiers

Qualifier	Description
MES	Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).



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: 1499973)										
VA24B3435-002	Anonymous	Nitrogen, total	7727-37-9	E366	0.360 mg/L	0.4 mg/L	90.0	70.0	130	----
Anions and Nutrients (QCLot: 1499974)										
VA24B3435-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0493 mg/L	0.05 mg/L	98.6	70.0	130	----
Anions and Nutrients (QCLot: 1499975)										
VA24B3435-002	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.106 mg/L	0.1 mg/L	106	75.0	125	----
Total Metals (QCLot: 1500068)										
VA24B4178-002	Anonymous	Aluminum, total	7429-90-5	E420	0.196 mg/L	0.2 mg/L	97.8	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0196 mg/L	0.02 mg/L	98.1	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Barium, total	7440-39-3	E420	ND mg/L	----	ND	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0405 mg/L	0.04 mg/L	101	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00949 mg/L	0.01 mg/L	94.9	70.0	130	----
		Boron, total	7440-42-8	E420	0.101 mg/L	0.1 mg/L	101	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0101 mg/L	0.01 mg/L	101	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0392 mg/L	0.04 mg/L	98.1	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0192 mg/L	0.02 mg/L	96.3	70.0	130	----
		Copper, total	7440-50-8	E420	0.0180 mg/L	0.02 mg/L	90.1	70.0	130	----
		Iron, total	7439-89-6	E420	1.90 mg/L	2 mg/L	94.8	70.0	130	----
		Lead, total	7439-92-1	E420	0.0187 mg/L	0.02 mg/L	93.3	70.0	130	----
		Lithium, total	7439-93-2	E420	0.0960 mg/L	0.1 mg/L	96.0	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0178 mg/L	0.02 mg/L	89.2	70.0	130	----
		Molybdenum, total	7439-98-7	E420	ND mg/L	----	ND	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0381 mg/L	0.04 mg/L	95.2	70.0	130	----
		Phosphorus, total	7723-14-0	E420	10.1 mg/L	10 mg/L	101	70.0	130	----
		Potassium, total	7440-09-7	E420	ND mg/L	----	ND	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0197 mg/L	0.02 mg/L	98.5	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0409 mg/L	0.04 mg/L	102	70.0	130	----
		Silicon, total	7440-21-3	E420	9.67 mg/L	10 mg/L	96.7	70.0	130	----
		Silver, total	7440-22-4	E420	0.00386 mg/L	0.004 mg/L	96.4	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	0.0414 mg/L	0.04 mg/L	104	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00367 mg/L	0.004 mg/L	91.8	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0146 mg/L	0.02 mg/L	73.2	70.0	130	----
		Tin, total	7440-31-5	E420	0.0202 mg/L	0.02 mg/L	101	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: 1500068) - continued										
VA24B4178-002	Anonymous	Tungsten, total	7440-33-7	E420	0.0193 mg/L	0.02 mg/L	96.7	70.0	130	----
		Uranium, total	7440-61-1	E420	ND mg/L	----	ND	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	0.372 mg/L	0.4 mg/L	93.0	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0409 mg/L	0.04 mg/L	102	70.0	130	----
Dissolved Metals (QCLot: 1500072)										
VA24B4178-002	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.189 mg/L	0.2 mg/L	94.5	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0198 mg/L	0.02 mg/L	98.8	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	----	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0387 mg/L	0.04 mg/L	96.8	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00892 mg/L	0.01 mg/L	89.2	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.097 mg/L	0.1 mg/L	96.8	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0102 mg/L	0.01 mg/L	102	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0386 mg/L	0.04 mg/L	96.4	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0192 mg/L	0.02 mg/L	96.0	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0182 mg/L	0.02 mg/L	90.8	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.86 mg/L	2 mg/L	93.2	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0187 mg/L	0.02 mg/L	93.5	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0921 mg/L	0.1 mg/L	92.1	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0187 mg/L	0.02 mg/L	93.4	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	ND mg/L	----	ND	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0376 mg/L	0.04 mg/L	94.0	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.4 mg/L	10 mg/L	104	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	ND mg/L	----	ND	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0201 mg/L	0.02 mg/L	101	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0442 mg/L	0.04 mg/L	111	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.40 mg/L	10 mg/L	94.0	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00376 mg/L	0.004 mg/L	94.0	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	ND mg/L	----	ND	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0423 mg/L	0.04 mg/L	106	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00377 mg/L	0.004 mg/L	94.3	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0154 mg/L	0.02 mg/L	77.0	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0201 mg/L	0.02 mg/L	100	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0408 mg/L	0.04 mg/L	102	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0196 mg/L	0.02 mg/L	97.8	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	ND mg/L	----	ND	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	0.375 mg/L	0.4 mg/L	93.9	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0415 mg/L	0.04 mg/L	104	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
Speciated Metals (QCLot: 1501567)										
VA24B4143-001	WLNG EOP	Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.0397 mg/L	0.04 mg/L	99.2	70.0	130	---
Aggregate Organics (QCLot: 1502035)										
VA24B4143-001	WLNG EOP	Phenols, total (4AAP)	----	E562	0.0211 mg/L	0.02 mg/L	106	75.0	125	---
Volatile Organic Compounds (QCLot: 1500039)										
VA24B4143-001	WLNG EOP	Benzene	71-43-2	E611C	105 µg/L	100 µg/L	105	60.0	140	---
		Bromodichloromethane	75-27-4	E611C	99.6 µg/L	100 µg/L	99.6	60.0	140	---
		Bromoform	75-25-2	E611C	96.1 µg/L	100 µg/L	96.1	60.0	140	---
		Carbon tetrachloride	56-23-5	E611C	99.0 µg/L	100 µg/L	99.0	60.0	140	---
		Chlorobenzene	108-90-7	E611C	107 µg/L	100 µg/L	107	60.0	140	---
		Chloroethane	75-00-3	E611C	122 µg/L	100 µg/L	122	50.0	150	---
		Chloroform	67-66-3	E611C	102 µg/L	100 µg/L	102	60.0	140	---
		Chloromethane	74-87-3	E611C	94.2 µg/L	100 µg/L	94.2	50.0	150	---
		Dibromochloromethane	124-48-1	E611C	97.2 µg/L	100 µg/L	97.2	60.0	140	---
		Dichlorobenzene, 1,2-	95-50-1	E611C	104 µg/L	100 µg/L	104	60.0	140	---
		Dichlorobenzene, 1,3-	541-73-1	E611C	109 µg/L	100 µg/L	109	60.0	140	---
		Dichlorobenzene, 1,4-	106-46-7	E611C	111 µg/L	100 µg/L	111	60.0	140	---
		Dichloroethane, 1,1-	75-34-3	E611C	107 µg/L	100 µg/L	107	60.0	140	---
		Dichloroethane, 1,2-	107-06-2	E611C	101 µg/L	100 µg/L	101	60.0	140	---
		Dichloroethylene, 1,1-	75-35-4	E611C	104 µg/L	100 µg/L	104	60.0	140	---
		Dichloroethylene, cis-1,2-	156-59-2	E611C	101 µg/L	100 µg/L	101	60.0	140	---
		Dichloroethylene, trans-1,2-	156-60-5	E611C	110 µg/L	100 µg/L	110	60.0	140	---
		Dichloromethane	75-09-2	E611C	108 µg/L	100 µg/L	108	60.0	140	---
		Dichloropropane, 1,2-	78-87-5	E611C	107 µg/L	100 µg/L	107	60.0	140	---
		Dichloropropylene, cis-1,3-	10061-01-5	E611C	90.7 µg/L	100 µg/L	90.7	60.0	140	---
		Dichloropropylene, trans-1,3-	10061-02-6	E611C	87.4 µg/L	100 µg/L	87.4	60.0	140	---
		Ethylbenzene	100-41-4	E611C	95.8 µg/L	100 µg/L	95.8	60.0	140	---
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611C	116 µg/L	100 µg/L	116	60.0	140	---
		Styrene	100-42-5	E611C	101 µg/L	100 µg/L	101	60.0	140	---
		Tetrachloroethane, 1,1,1,2-	630-20-6	E611C	96.3 µg/L	100 µg/L	96.3	60.0	140	---
		Tetrachloroethane, 1,1,1,2,2-	79-34-5	E611C	98.1 µg/L	100 µg/L	98.1	60.0	140	---
		Tetrachloroethylene	127-18-4	E611C	108 µg/L	100 µg/L	108	60.0	140	---
		Toluene	108-88-3	E611C	102 µg/L	100 µg/L	102	60.0	140	---
		Trichloroethane, 1,1,1-	71-55-6	E611C	96.5 µg/L	100 µg/L	96.5	60.0	140	---
		Trichloroethane, 1,1,2-	79-00-5	E611C	98.9 µg/L	100 µg/L	98.9	60.0	140	---
		Trichloroethylene	79-01-6	E611C	101 µg/L	100 µg/L	101	60.0	140	---
		Trichlorofluoromethane	75-69-4	E611C	116 µg/L	100 µg/L	116	50.0	150	---
		Vinyl chloride	75-01-4	E611C	99.6 µg/L	100 µg/L	99.6	50.0	150	---
		Xylene, m+p-	179601-23-1	E611C	224 µg/L	200 µg/L	112	60.0	140	---
		Xylene, o-	95-47-6	E611C	97.0 µg/L	100 µg/L	97.0	60.0	140	---

Page : 23 of 23
Work Order : VA24B4143
Client : Triton Environmental Consultants Ltd.
Project : 11964



CERTIFICATE OF ANALYSIS

Work Order : VA24B4261
Client : Triton Environmental Consultants Ltd.
Contact : [Redacted]
Address : [Redacted]

Telephone : [Redacted]
Project : 11964
PO : 11964-Task 30-Phase 3C-4C
C-O-C number : ----
Sampler : ----
Site : Water Analysis
Quote number : VA23-TRIT100-012_V2
No. of samples received : 1
No. of samples analysed : 1

Page : 1 of 10
Laboratory : ALS Environmental - Vancouver
Account Manager : [Redacted]
Address : [Redacted]

Telephone : [Redacted]
Date Samples Received : 18-Jun-2024 19:00
Date Analysis Commenced : 18-Jun-2024
Issue Date : 21-Jun-2024 13:33

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>
[Redacted]	Analyst	Inorganics, Burnaby, British Columbia
	Laboratory Analyst	Inorganics, Edmonton, Alberta
		Metals, Burnaby, British Columbia
	Supervisor - Organics Instrumentation	Organics, Burnaby, British Columbia
	Supervisor - Inorganic	Inorganics, Burnaby, British Columbia
	Lab Analyst	Metals, Burnaby, British Columbia
	Lab Assistant	Inorganics, Burnaby, British Columbia
	Account Manager Assistant	Administration, Burnaby, British Columbia
	Team Leader - Organics	Organics, Burnaby, British Columbia
	Team Leader - Metals	Metals, Burnaby, British Columbia
	Analyst	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).

<i>Unit</i>	<i>Description</i>
-	no units
°C	degrees celsius
µg/L	micrograms per litre
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
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.

Qualifiers

<i>Qualifier</i>	<i>Description</i>
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
SUR-ND	Surrogate recovery marginally exceeded ALS DQO. Reported non-detect results for associated samples were deemed to be unaffected.



Analytical Results

Sub-Matrix: Water					Client sample ID	WLNG EOP	---	---	---	---
(Matrix: Water)					Client sampling date / time	18-Jun-2024 15:30	---	---	---	---
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4261-001	-----	-----	-----	-----	
					Result	---	---	---	---	
Field Tests										
Conductivity, field	---	EF001/VA	0.10	µS/cm	314.00	---	---	---	---	
pH, field	---	EF001/VA	0.10	pH units	7.20	---	---	---	---	
Temperature, field	---	EF001/VA	0.10	°C	20.2	---	---	---	---	
Physical Tests										
Hardness (as CaCO3), dissolved	---	EC100/VA	0.60	mg/L	78.4	---	---	---	---	
Hardness (as CaCO3), from total Ca/Mg	---	EC100A/VA	0.60	mg/L	79.9	---	---	---	---	
Solids, total dissolved [TDS]	---	E162/VA	10	mg/L	217	---	---	---	---	
Solids, total suspended [TSS]	---	E160/VA	3.0	mg/L	4.2	---	---	---	---	
Alkalinity, total (as CaCO3)	---	E290/VA	2.0	mg/L	134	---	---	---	---	
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L	<0.0050	---	---	---	---	
Bromide	24959-67-9	E235.Br-L/VA	0.050	mg/L	<0.050	---	---	---	---	
Chloride	16887-00-6	E235.Cl/VA	0.50	mg/L	15.7	---	---	---	---	
Fluoride	16984-48-8	E235.F/VA	0.020	mg/L	0.294	---	---	---	---	
Nitrate (as N)	14797-55-8	E235.NO3-L/V A	0.0050	mg/L	<0.0050	---	---	---	---	
Nitrite (as N)	14797-65-0	E235.NO2-L/V A	0.0010	mg/L	<0.0010	---	---	---	---	
Nitrogen, total	7727-37-9	E366/VA	0.030	mg/L	2.23	---	---	---	---	
Phosphorus, total	7723-14-0	E372-U/VA	0.0020	mg/L	0.0174	---	---	---	---	
Sulfate (as SO4)	14808-79-8	E235.SO4/VA	0.30	mg/L	6.81	---	---	---	---	
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	---	E358-L/VA	0.50	mg/L	11.0	---	---	---	---	
Total Sulfides										
Sulfide, total (as S)	18496-25-8	E395/VA	0.0015	mg/L	<0.0015	---	---	---	---	
Sulfide, un-ionized (as H2S), from total	7783-06-4	EC395/VA	0.0015	mg/L	<0.0015	---	---	---	---	
Sulfide, total (as H2S)	7783-06-4	E395/VA	0.0016	mg/L	<0.0016	---	---	---	---	
Total Metals										
Aluminum, total	7429-90-5	E420/VA	0.0030	mg/L	0.104	---	---	---	---	
Antimony, total	7440-36-0	E420/VA	0.00010	mg/L	0.00120	---	---	---	---	



Analytical Results

Sub-Matrix: Water					Client sample ID	WLNQ EOP	----	----	----	----
(Matrix: Water)					Client sampling date / time	18-Jun-2024 15:30	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4261-001	-----	-----	-----	-----	
					Result	---	---	---	---	
Total Metals										
Arsenic, total	7440-38-2	E420/VA	0.00010	mg/L	0.00136	---	---	---	---	
Barium, total	7440-39-3	E420/VA	0.00010	mg/L	0.00514	---	---	---	---	
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	0.031	---	---	---	---	
Cadmium, total	7440-43-9	E420/VA	0.0000050	mg/L	<0.0000100 ^{DLM}	---	---	---	---	
Calcium, total	7440-70-2	E420/VA	0.050	mg/L	27.4	---	---	---	---	
Cesium, total	7440-46-2	E420/VA	0.000010	mg/L	0.000049	---	---	---	---	
Chromium, total	7440-47-3	E420/VA	0.00050	mg/L	<0.00050	---	---	---	---	
Cobalt, total	7440-48-4	E420/VA	0.00010	mg/L	0.00011	---	---	---	---	
Copper, total	7440-50-8	E420/VA	0.00050	mg/L	<0.00050	---	---	---	---	
Iron, total	7439-89-6	E420/VA	0.010	mg/L	0.070	---	---	---	---	
Lead, total	7439-92-1	E420/VA	0.000050	mg/L	0.000072	---	---	---	---	
Lithium, total	7439-93-2	E420/VA	0.0010	mg/L	0.0201	---	---	---	---	
Magnesium, total	7439-95-4	E420/VA	0.0050	mg/L	2.80	---	---	---	---	
Manganese, total	7439-96-5	E420/VA	0.00010	mg/L	0.112	---	---	---	---	
Mercury, total	7439-97-6	E508/VA	0.0000050	mg/L	<0.0000050	---	---	---	---	
Molybdenum, total	7439-98-7	E420/VA	0.000050	mg/L	0.00799	---	---	---	---	
Nickel, total	7440-02-0	E420/VA	0.00050	mg/L	<0.00050	---	---	---	---	
Phosphorus, total	7723-14-0	E420/VA	0.050	mg/L	<0.050	---	---	---	---	
Potassium, total	7440-09-7	E420/VA	0.050	mg/L	10.7	---	---	---	---	
Rubidium, total	7440-17-7	E420/VA	0.00020	mg/L	0.0164	---	---	---	---	
Selenium, total	7782-49-2	E420/VA	0.000050	mg/L	0.000083	---	---	---	---	
Silicon, total	7440-21-3	E420/VA	0.10	mg/L	6.12	---	---	---	---	
Silver, total	7440-22-4	E420/VA	0.000010	mg/L	<0.000010	---	---	---	---	
Sodium, total	7440-23-5	E420/VA	0.050	mg/L	29.6	---	---	---	---	
Strontium, total	7440-24-6	E420/VA	0.00020	mg/L	0.123	---	---	---	---	
Sulfur, total	7704-34-9	E420/VA	0.50	mg/L	2.82	---	---	---	---	
Tellurium, total	13494-80-9	E420/VA	0.00020	mg/L	<0.00020	---	---	---	---	
Thallium, total	7440-28-0	E420/VA	0.000010	mg/L	0.000063	---	---	---	---	



Analytical Results

Sub-Matrix: Water					Client sample ID	WLNQ EOP	----	----	----	----
(Matrix: Water)					Client sampling date / time	18-Jun-2024 15:30	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4261-001	-----	-----	-----	-----	
					Result	---	---	---	---	
Total Metals										
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	0.00351	---	---	---	---	
Tungsten, total	7440-33-7	E420/VA	0.00010	mg/L	0.00018	---	---	---	---	
Uranium, total	7440-61-1	E420/VA	0.000010	mg/L	0.000378	---	---	---	---	
Vanadium, total	7440-62-2	E420/VA	0.00050	mg/L	0.00057	---	---	---	---	
Zinc, total	7440-66-6	E420/VA	0.0030	mg/L	<0.0030	---	---	---	---	
Zirconium, total	7440-67-7	E420/VA	0.00020	mg/L	<0.00020	---	---	---	---	
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/VA	0.0010	mg/L	0.0099	---	---	---	---	
Antimony, dissolved	7440-36-0	E421/VA	0.00010	mg/L	0.00117	---	---	---	---	
Arsenic, dissolved	7440-38-2	E421/VA	0.00010	mg/L	0.00135	---	---	---	---	
Barium, dissolved	7440-39-3	E421/VA	0.00010	mg/L	0.00351	---	---	---	---	
Beryllium, dissolved	7440-41-7	E421/VA	0.000100	mg/L	<0.000100	---	---	---	---	
Bismuth, dissolved	7440-69-9	E421/VA	0.000050	mg/L	<0.000050	---	---	---	---	
Boron, dissolved	7440-42-8	E421/VA	0.010	mg/L	0.030	---	---	---	---	
Cadmium, dissolved	7440-43-9	E421/VA	0.0000050	mg/L	0.0000081	---	---	---	---	
Calcium, dissolved	7440-70-2	E421/VA	0.050	mg/L	26.8	---	---	---	---	
Cesium, dissolved	7440-46-2	E421/VA	0.000010	mg/L	0.000044	---	---	---	---	
Chromium, dissolved	7440-47-3	E421/VA	0.00050	mg/L	<0.00050	---	---	---	---	
Cobalt, dissolved	7440-48-4	E421/VA	0.00010	mg/L	0.00010	---	---	---	---	
Copper, dissolved	7440-50-8	E421/VA	0.00020	mg/L	0.00023	---	---	---	---	
Iron, dissolved	7439-89-6	E421/VA	0.010	mg/L	0.023	---	---	---	---	
Lead, dissolved	7439-92-1	E421/VA	0.000050	mg/L	<0.000050	---	---	---	---	
Lithium, dissolved	7439-93-2	E421/VA	0.0010	mg/L	0.0206	---	---	---	---	
Magnesium, dissolved	7439-95-4	E421/VA	0.0050	mg/L	2.78	---	---	---	---	
Manganese, dissolved	7439-96-5	E421/VA	0.00010	mg/L	0.110	---	---	---	---	
Mercury, dissolved	7439-97-6	E509/VA	0.0000050	mg/L	<0.0000050	---	---	---	---	
Molybdenum, dissolved	7439-98-7	E421/VA	0.000050	mg/L	0.00766	---	---	---	---	
Nickel, dissolved	7440-02-0	E421/VA	0.00050	mg/L	<0.00050	---	---	---	---	



Analytical Results

Sub-Matrix: Water					Client sample ID	WLNQ EOP	----	----	----	----
(Matrix: Water)					Client sampling date / time	18-Jun-2024 15:30	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4261-001	-----	-----	-----	-----	
					Result	---	---	---	---	
Dissolved Metals										
Phosphorus, dissolved	7723-14-0	E421/VA	0.050	mg/L	<0.050	---	---	---	---	
Potassium, dissolved	7440-09-7	E421/VA	0.050	mg/L	10.8	---	---	---	---	
Rubidium, dissolved	7440-17-7	E421/VA	0.00020	mg/L	0.0166	---	---	---	---	
Selenium, dissolved	7782-49-2	E421/VA	0.000050	mg/L	0.000053	---	---	---	---	
Silicon, dissolved	7440-21-3	E421/VA	0.050	mg/L	5.54	---	---	---	---	
Silver, dissolved	7440-22-4	E421/VA	0.000010	mg/L	<0.000010	---	---	---	---	
Sodium, dissolved	7440-23-5	E421/VA	0.050	mg/L	28.9	---	---	---	---	
Strontium, dissolved	7440-24-6	E421/VA	0.00020	mg/L	0.120	---	---	---	---	
Sulfur, dissolved	7704-34-9	E421/VA	0.50	mg/L	2.96	---	---	---	---	
Tellurium, dissolved	13494-80-9	E421/VA	0.00020	mg/L	<0.00020	---	---	---	---	
Thallium, dissolved	7440-28-0	E421/VA	0.000010	mg/L	0.000060	---	---	---	---	
Thorium, dissolved	7440-29-1	E421/VA	0.00010	mg/L	<0.00010	---	---	---	---	
Tin, dissolved	7440-31-5	E421/VA	0.00010	mg/L	<0.00010	---	---	---	---	
Titanium, dissolved	7440-32-6	E421/VA	0.00030	mg/L	0.00133	---	---	---	---	
Tungsten, dissolved	7440-33-7	E421/VA	0.00010	mg/L	0.00015	---	---	---	---	
Uranium, dissolved	7440-61-1	E421/VA	0.000010	mg/L	0.000343	---	---	---	---	
Vanadium, dissolved	7440-62-2	E421/VA	0.00050	mg/L	0.00053	---	---	---	---	
Zinc, dissolved	7440-66-6	E421/VA	0.0010	mg/L	0.0013	---	---	---	---	
Zirconium, dissolved	7440-67-7	E421/VA	0.00020	mg/L	<0.00020	---	---	---	---	
Dissolved mercury filtration location	----	EP509/VA	-	-	Field	---	---	---	---	
Dissolved metals filtration location	----	EP421/VA	-	-	Field	---	---	---	---	
Speciated Metals										
Chromium, hexavalent [Cr VI], total	18540-29-9	E532/VA	0.00050	mg/L	<0.00050	---	---	---	---	
Chromium, trivalent [Cr III], total	16065-83-1	EC535/VA	0.00050	mg/L	<0.00050	---	---	---	---	
Aggregate Organics										
Phenols, total (4AAP)	----	E562/EO	0.0010	mg/L	<0.0010	---	---	---	---	
Volatile Organic Compounds										
Chlorobenzene	108-90-7	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Chloromethane	74-87-3	E611C/VA	5.0	µg/L	<5.0	---	---	---	---	
Dichlorobenzene, 1,2-	95-50-1	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	



Analytical Results

Sub-Matrix: Water					Client sample ID	W LNG EOP	----	----	----	----
(Matrix: Water)					Client sampling date / time	18-Jun-2024 15:30	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4261-001	-----	-----	-----	-----	
					Result	---	---	---	---	
Volatile Organic Compounds										
Dichlorobenzene, 1,3-	541-73-1	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dichlorobenzene, 1,4-	106-46-7	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dichloropropane, 1,2-	78-87-5	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dichloropropylene, cis+trans-1,3-	542-75-6	E611C/VA	0.75	µg/L	<0.75	---	---	---	---	
Dichloropropylene, cis-1,3-	10061-01-5	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Tetrachloroethane, 1,1,1,2-	630-20-6	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Tetrachloroethane, 1,1,2,2-	79-34-5	E611C/VA	0.20	µg/L	<0.20	---	---	---	---	
Trichloroethane, 1,1,2-	79-00-5	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Trichlorofluoromethane	75-69-4	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Volatile Organic Compounds [Drycleaning]										
Carbon tetrachloride	56-23-5	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Chloroethane	75-00-3	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dichloroethane, 1,1-	75-34-3	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dichloroethane, 1,2-	107-06-2	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dichloroethylene, 1,1-	75-35-4	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dichloroethylene, cis-1,2-	156-59-2	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dichloroethylene, trans-1,2-	156-60-5	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dichloromethane	75-09-2	E611C/VA	1.0	µg/L	<1.0	---	---	---	---	
Dichloropropylene, trans-1,3-	10061-02-6	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Tetrachloroethylene	127-18-4	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Trichloroethane, 1,1,1-	71-55-6	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Trichloroethylene	79-01-6	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Vinyl chloride	75-01-4	E611C/VA	0.40	µg/L	<0.40	---	---	---	---	
Volatile Organic Compounds [Fuels]										
Benzene	71-43-2	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Ethylbenzene	100-41-4	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Styrene	100-42-5	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Toluene	108-88-3	E611C/VA	0.40	µg/L	<0.40	---	---	---	---	
Xylene, m+p-	179601-23-1	E611C/VA	0.40	µg/L	<0.40	---	---	---	---	



Analytical Results

Sub-Matrix: Water					Client sample ID	WLNQ EOP	----	----	----	----
(Matrix: Water)					Client sampling date / time	18-Jun-2024 15:30	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4261-001	-----	-----	-----	-----	
Result						----	----	----	----	
Volatile Organic Compounds [Fuels]										
Xylene, o-	95-47-6	E611C/VA	0.30	µg/L	<0.30	---	---	---	---	
Xylenes, total	1330-20-7	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Volatile Organic Compounds [THMs]										
Bromodichloromethane	75-27-4	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Bromoform	75-25-2	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Chloroform	67-66-3	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dibromochloromethane	124-48-1	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Hydrocarbons										
EPH (C10-C19)	----	E601A/VA	250	µg/L	<250	---	---	---	---	
EPH (C19-C32)	----	E601A/VA	250	µg/L	<250	---	---	---	---	
VHw (C6-C10)	----	E581.VH+F1/ VA	100	µg/L	<100	---	---	---	---	
HEPHw	----	EC600A/VA	250	µg/L	<250	---	---	---	---	
LEPHw	----	EC600A/VA	250	µg/L	<250	---	---	---	---	
VPHw	----	EC580A/VA	100	µg/L	<100	---	---	---	---	
Hydrocarbons Surrogates										
Bromobenzotrifluoride, 2- (EPH surrogate)	392-83-6	E601A/VA	1.0	%	88.3	---	---	---	---	
Dichlorotoluene, 3,4-	95-75-0	E581.VH+F1/ VA	1.0	%	101	---	---	---	---	
Volatile Organic Compounds Surrogates										
Bromofluorobenzene, 4-	460-00-4	E611C/VA	1.0	%	90.9	---	---	---	---	
Difluorobenzene, 1,4-	540-36-3	E611C/VA	1.0	%	102	---	---	---	---	
Polycyclic Aromatic Hydrocarbons										
Acenaphthene	83-32-9	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Acenaphthylene	208-96-8	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Acridine	260-94-6	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Anthracene	120-12-7	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Benz(a)anthracene	56-55-3	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Benzo(a)pyrene	50-32-8	E641A/VA	0.0050	µg/L	<0.0050	---	---	---	---	
Benzo(b+)fluoranthene	n/a	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	



Analytical Results

Sub-Matrix: Water					Client sample ID	WLNQ EOP	---	---	---	---
(Matrix: Water)					Client sampling date / time	18-Jun-2024 15:30	---	---	---	---
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4261-001	-----	-----	-----	-----	
					Result	---	---	---	---	
Polycyclic Aromatic Hydrocarbons										
Benzo(b+j+k)fluoranthene	n/a	E641A/VA	0.015	µg/L	<0.015	---	---	---	---	
Benzo(g,h,i)perylene	191-24-2	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Benzo(k)fluoranthene	207-08-9	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Chrysene	218-01-9	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Dibenz(a,h)anthracene	53-70-3	E641A/VA	0.0050	µg/L	<0.0050	---	---	---	---	
Fluoranthene	206-44-0	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Fluorene	86-73-7	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Indeno(1,2,3-c,d)pyrene	193-39-5	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Methylnaphthalene, 1-	90-12-0	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Methylnaphthalene, 2-	91-57-6	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Naphthalene	91-20-3	E641A/VA	0.050	µg/L	0.052	---	---	---	---	
Phenanthrene	85-01-8	E641A/VA	0.020	µg/L	<0.020	---	---	---	---	
Pyrene	129-00-0	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Quinoline	91-22-5	E641A/VA	0.050	µg/L	<0.050	---	---	---	---	
Polycyclic Aromatic Hydrocarbons Surrogates										
Chrysene-d12	1719-03-5	E641A/VA	0.1	%	99.3	---	---	---	---	
Naphthalene-d8	1146-65-2	E641A/VA	0.1	%	97.5	---	---	---	---	
Phenanthrene-d10	1517-22-2	E641A/VA	0.1	%	99.2	---	---	---	---	
Glycols										
Diethylene glycol	111-46-6	E680E/VA	5.0	mg/L	<5.0	---	---	---	---	
Ethylene glycol	107-21-1	E680E/VA	5.0	mg/L	<5.0	---	---	---	---	
Propylene glycol, 1,2-	57-55-6	E680E/VA	5.0	mg/L	<5.0	---	---	---	---	
Triethylene glycol	112-27-6	E680E/VA	5.0	mg/L	<5.0	---	---	---	---	
Glycols, total (EG+DEG+PG)	----	E680E/VA	10	mg/L	<10	---	---	---	---	
Glycols Surrogates										
Propanediol, 1,3-	504-63-2	E680E/VA	1.0	%	63.9 ^{SUR-ND}	---	---	---	---	

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

<p>Work Order : VA24B4261</p> <p>Client : Triton Environmental Consultants Ltd.</p> <p>Contact : [REDACTED]</p> <p>Address : [REDACTED]</p> <p>Telephone : [REDACTED]</p> <p>Project : 11964</p> <p>PO : 11964-Task 30-Phase 3C-4C</p> <p>C-O-C number : ----</p> <p>Sampler : ----</p> <p>Site : Water Analysis</p> <p>Quote number : VA23-TRIT100-012_V2</p> <p>No. of samples received : 1</p> <p>No. of samples analysed : 1</p>	<p>Page : 1 of 15</p> <p>Laboratory : ALS Environmental - Vancouver</p> <p>Account Manager : [REDACTED]</p> <p>Address : [REDACTED]</p> <p>Telephone : [REDACTED]</p> <p>Date Samples Received : 18-Jun-2024 19:00</p> <p>Issue Date : 21-Jun-2024 13:33</p>
---	---

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.
- Test sample Surrogate recovery outliers exist for all regular sample matrices - please see following pages for full details.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Page : 3 of 15
Work Order : VA24B4261
Client : Triton Environmental Consultants Ltd.
Project : 11964



Regular Sample Surrogates

Sub-Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Result	Limits	Comment
Samples Submitted							
Glycols Surrogates	VA24B4261-001	WLNG EOP	Propanediol, 1,3-	504-63-2	63.9 %	70.0-130 %	Recovery less than lower data quality objective



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 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		
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry											
Amber glass total (sulfuric acid) WLNG EOP	E562	18-Jun-2024	21-Jun-2024	28 days	3 days	✔	21-Jun-2024	28 days	3 days	✔	
Anions and Nutrients : Ammonia by Fluorescence											
Amber glass total (sulfuric acid) WLNG EOP	E298	18-Jun-2024	19-Jun-2024	28 days	0 days	✔	19-Jun-2024	28 days	1 days	✔	
Anions and Nutrients : Bromide in Water by IC (Low Level)											
HDPE WLNG EOP	E235.Br-L	18-Jun-2024	19-Jun-2024	28 days	0 days	✔	19-Jun-2024	28 days	0 days	✔	
Anions and Nutrients : Chloride in Water by IC											
HDPE WLNG EOP	E235.Cl	18-Jun-2024	19-Jun-2024	28 days	0 days	✔	19-Jun-2024	28 days	0 days	✔	
Anions and Nutrients : Fluoride in Water by IC											
HDPE WLNG EOP	E235.F	18-Jun-2024	19-Jun-2024	28 days	0 days	✔	19-Jun-2024	28 days	0 days	✔	
Anions and Nutrients : Nitrate in Water by IC (Low Level)											
HDPE WLNG EOP	E235.NO3-L	18-Jun-2024	19-Jun-2024	3 days	0 days	✔	19-Jun-2024	3 days	0 days	✔	
Anions and Nutrients : Nitrite in Water by IC (Low Level)											
HDPE WLNG EOP	E235.NO2-L	18-Jun-2024	19-Jun-2024	3 days	0 days	✔	19-Jun-2024	3 days	0 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	
Anions and Nutrients : Sulfate in Water by IC										
HDPE WLNG EOP	E235.SO4	18-Jun-2024	19-Jun-2024	28 days	0 days	✓	19-Jun-2024	28 days	0 days	✓
Anions and Nutrients : Total Nitrogen by Colourimetry										
Amber glass total (sulfuric acid) WLNG EOP	E366	18-Jun-2024	19-Jun-2024	28 days	0 days	✓	19-Jun-2024	28 days	1 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) WLNG EOP	E372-U	18-Jun-2024	19-Jun-2024	28 days	0 days	✓	19-Jun-2024	28 days	1 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial - dissolved (lab preserved) WLNG EOP	E509	18-Jun-2024	19-Jun-2024	28 days	1 days	✓	19-Jun-2024	28 days	1 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) WLNG EOP	E421	18-Jun-2024	19-Jun-2024	180 days	1 days	✓	19-Jun-2024	180 days	1 days	✓
Field Tests : Field pH,EC,Salinity, TDS, Cl2,CIO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial - total (lab preserved) WLNG EOP	EF001	18-Jun-2024	----	----	----		19-Jun-2024	----	1 days	
Glycols : Glycols (4 analytes) by GC-FID										
Glass vial WLNG EOP	E680E	18-Jun-2024	19-Jun-2024	7 days	1 days	✓	19-Jun-2024	40 days	1 days	✓
Hydrocarbons : BC PHCs - EPH by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate) WLNG EOP	E601A	18-Jun-2024	18-Jun-2024	14 days	0 days	✓	19-Jun-2024	40 days	0 days	✓
Hydrocarbons : VH and F1 by Headspace GC-FID										
Glass vial (sodium bisulfate) WLNG EOP	E581.VH+F1	18-Jun-2024	19-Jun-2024	14 days	1 days	✓	19-Jun-2024	14 days	1 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	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) WLNG EOP	E358-L	18-Jun-2024	19-Jun-2024	28 days	0 days	✔	19-Jun-2024	28 days	0 days	✔
Physical Tests : Alkalinity Species by Titration										
HDPE WLNG EOP	E290	18-Jun-2024	19-Jun-2024	14 days	0 days	✔	19-Jun-2024	14 days	1 days	✔
Physical Tests : TDS by Gravimetry										
HDPE WLNG EOP	E162	18-Jun-2024	----	----	----		18-Jun-2024	7 days	0 days	✔
Physical Tests : TSS by Gravimetry										
HDPE WLNG EOP	E160	18-Jun-2024	----	----	----		18-Jun-2024	7 days	0 days	✔
Polycyclic Aromatic Hydrocarbons : PAHs in Water by Hexane LVI GC-MS										
Amber glass/Teflon lined cap (sodium bisulfate) WLNG EOP	E641A	18-Jun-2024	18-Jun-2024	14 days	0 days	✔	19-Jun-2024	40 days	0 days	✔
Speciated Metals : Total Hexavalent Chromium (Cr VI) by IC										
UV-inhibited HDPE - total (sodium hydroxide) WLNG EOP	E532	18-Jun-2024	----	----	----		19-Jun-2024	28 days	1 days	✔
Total Metals : Total Mercury in Water by CVAAS										
Glass vial - total (lab preserved) WLNG EOP	E508	18-Jun-2024	19-Jun-2024	28 days	1 days	✔	19-Jun-2024	28 days	1 days	✔
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) WLNG EOP	E420	18-Jun-2024	19-Jun-2024	180 days	1 days	✔	19-Jun-2024	180 days	1 days	✔
Total Sulfides : Total Sulfide by Colourimetry (Automated Flow)										
HDPE total (zinc acetate+sodium hydroxide) WLNG EOP	E395	18-Jun-2024	----	----	----		19-Jun-2024	7 days	1 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	
Volatile Organic Compounds : VOCs (BC List) by Headspace GC-MS										
Glass vial (sodium bisulfate) WLNG EOP	E611C	18-Jun-2024	19-Jun-2024	14 days	1 days	✔	19-Jun-2024	14 days	1 days	✔

Legend & Qualifier Definitions

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 (%)		
			QC	Regular	Actual	Expected	Evaluation
Analytical Methods							
Laboratory Duplicates (DUP)							
Alkalinity Species by Titration	E290	1501043	0	2	0.0	5.0	✖
Ammonia by Fluorescence	E298	1501006	1	6	16.6	5.0	✔
Bromide in Water by IC (Low Level)	E235.Br-L	1501050	1	1	100.0	5.0	✔
Chloride in Water by IC	E235.Cl	1501049	1	5	20.0	5.0	✔
Dissolved Mercury in Water by CVAAS	E509	1503131	1	1	100.0	5.0	✔
Dissolved Metals in Water by CRC ICPMS	E421	1501079	1	1	100.0	5.0	✔
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1501003	1	1	100.0	5.0	✔
Fluoride in Water by IC	E235.F	1501048	1	1	100.0	5.0	✔
Glycols (4 analytes) by GC-FID	E680E	1501266	1	3	33.3	5.0	✔
Nitrate in Water by IC (Low Level)	E235.NO3-L	1501046	1	6	16.6	5.0	✔
Nitrite in Water by IC (Low Level)	E235.NO2-L	1501047	1	6	16.6	5.0	✔
Phenols (4AAP) in Water by Colorimetry	E562	1506833	1	9	11.1	5.0	✔
Sulfate in Water by IC	E235.SO4	1501045	1	6	16.6	5.0	✔
TDS by Gravimetry	E162	1501038	1	1	100.0	5.0	✔
Total Hexavalent Chromium (Cr VI) by IC	E532	1502171	1	1	100.0	5.0	✔
Total Mercury in Water by CVAAS	E508	1503133	1	1	100.0	5.0	✔
Total Metals in Water by CRC ICPMS	E420	1501016	1	1	100.0	5.0	✔
Total Nitrogen by Colourimetry	E366	1501004	1	5	20.0	5.0	✔
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1501005	1	1	100.0	5.0	✔
Total Sulfide by Colourimetry (Automated Flow)	E395	1502014	1	5	20.0	5.0	✔
TSS by Gravimetry	E160	1501040	1	7	14.2	5.0	✔
VH and F1 by Headspace GC-FID	E581.VH+F1	1501300	1	19	5.2	5.0	✔
VOCs (BC List) by Headspace GC-MS	E611C	1501299	1	19	5.2	5.0	✔
Laboratory Control Samples (LCS)							
Alkalinity Species by Titration	E290	1501043	1	2	50.0	5.0	✔
Ammonia by Fluorescence	E298	1501006	1	6	16.6	5.0	✔
BC PHCs - EPH by GC-FID	E601A	1500909	1	3	33.3	5.0	✔
Bromide in Water by IC (Low Level)	E235.Br-L	1501050	1	1	100.0	5.0	✔
Chloride in Water by IC	E235.Cl	1501049	1	5	20.0	5.0	✔
Dissolved Mercury in Water by CVAAS	E509	1503131	1	1	100.0	5.0	✔
Dissolved Metals in Water by CRC ICPMS	E421	1501079	1	1	100.0	5.0	✔
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1501003	1	1	100.0	5.0	✔
Fluoride in Water by IC	E235.F	1501048	1	1	100.0	5.0	✔
Glycols (4 analytes) by GC-FID	E680E	1501266	1	3	33.3	5.0	✔
Nitrate in Water by IC (Low Level)	E235.NO3-L	1501046	1	6	16.6	5.0	✔
Nitrite in Water by IC (Low Level)	E235.NO2-L	1501047	1	6	16.6	5.0	✔



Matrix: **Water**

Evaluation: * = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
Analytical Methods							
Laboratory Control Samples (LCS) - Continued							
PAHs in Water by Hexane LVI GC-MS	E641A	1500910	1	3	33.3	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	1506833	1	9	11.1	5.0	✓
Sulfate in Water by IC	E235.SO4	1501045	1	6	16.6	5.0	✓
TDS by Gravimetry	E162	1501038	1	1	100.0	5.0	✓
Total Hexavalent Chromium (Cr VI) by IC	E532	1502171	1	1	100.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1503133	1	1	100.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1501016	1	1	100.0	5.0	✓
Total Nitrogen by Colourimetry	E366	1501004	1	5	20.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1501005	1	1	100.0	5.0	✓
Total Sulfide by Colourimetry (Automated Flow)	E395	1502014	1	5	20.0	5.0	✓
TSS by Gravimetry	E160	1501040	1	7	14.2	5.0	✓
VH and F1 by Headspace GC-FID	E581.VH+F1	1501300	1	19	5.2	5.0	✓
VOCs (BC List) by Headspace GC-MS	E611C	1501299	1	19	5.2	5.0	✓
Method Blanks (MB)							
Alkalinity Species by Titration	E290	1501043	1	2	50.0	5.0	✓
Ammonia by Fluorescence	E298	1501006	1	6	16.6	5.0	✓
BC PHCs - EPH by GC-FID	E601A	1500909	1	3	33.3	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	1501050	1	1	100.0	5.0	✓
Chloride in Water by IC	E235.Cl	1501049	1	5	20.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1503131	1	1	100.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1501079	1	1	100.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1501003	1	1	100.0	5.0	✓
Fluoride in Water by IC	E235.F	1501048	1	1	100.0	5.0	✓
Glycols (4 analytes) by GC-FID	E680E	1501266	1	3	33.3	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1501046	1	6	16.6	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1501047	1	6	16.6	5.0	✓
PAHs in Water by Hexane LVI GC-MS	E641A	1500910	1	3	33.3	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	1506833	1	9	11.1	5.0	✓
Sulfate in Water by IC	E235.SO4	1501045	1	6	16.6	5.0	✓
TDS by Gravimetry	E162	1501038	1	1	100.0	5.0	✓
Total Hexavalent Chromium (Cr VI) by IC	E532	1502171	1	1	100.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1503133	1	1	100.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1501016	1	1	100.0	5.0	✓
Total Nitrogen by Colourimetry	E366	1501004	1	5	20.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1501005	1	1	100.0	5.0	✓
Total Sulfide by Colourimetry (Automated Flow)	E395	1502014	1	5	20.0	5.0	✓
TSS by Gravimetry	E160	1501040	1	7	14.2	5.0	✓
VH and F1 by Headspace GC-FID	E581.VH+F1	1501300	1	19	5.2	5.0	✓
VOCs (BC List) by Headspace GC-MS	E611C	1501299	1	19	5.2	5.0	✓



Matrix: **Water**

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

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
<i>Analytical Methods</i>							
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1501006	1	6	16.6	5.0	✔
Bromide in Water by IC (Low Level)	E235.Br-L	1501050	0	1	0.0	5.0	✘
Chloride in Water by IC	E235.Cl	1501049	1	5	20.0	5.0	✔
Dissolved Mercury in Water by CVAAS	E509	1503131	0	1	0.0	5.0	✘
Dissolved Metals in Water by CRC ICPMS	E421	1501079	0	1	0.0	5.0	✘
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1501003	0	1	0.0	5.0	✘
Fluoride in Water by IC	E235.F	1501048	0	1	0.0	5.0	✘
Nitrate in Water by IC (Low Level)	E235.NO3-L	1501046	1	6	16.6	5.0	✔
Nitrite in Water by IC (Low Level)	E235.NO2-L	1501047	1	6	16.6	5.0	✔
Phenols (4AAP) in Water by Colorimetry	E562	1506833	1	9	11.1	5.0	✔
Sulfate in Water by IC	E235.SO4	1501045	1	6	16.6	5.0	✔
Total Hexavalent Chromium (Cr VI) by IC	E532	1502171	0	1	0.0	5.0	✘
Total Mercury in Water by CVAAS	E508	1503133	0	1	0.0	5.0	✘
Total Metals in Water by CRC ICPMS	E420	1501016	0	1	0.0	5.0	✘
Total Nitrogen by Colourimetry	E366	1501004	1	5	20.0	5.0	✔
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1501005	0	1	0.0	5.0	✘
Total Sulfide by Colourimetry (Automated Flow)	E395	1502014	1	5	20.0	5.0	✔
VH and F1 by Headspace GC-FID	E581.VH+F1	1501300	1	19	5.2	5.0	✔
VOCs (BC List) by Headspace GC-MS	E611C	1501299	1	19	5.2	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
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.
Bromide in Water by IC (Low Level)	E235.Br-L 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 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 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 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 ALS Environmental - Vancouver	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 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 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.



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
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)
Dissolved Organic Carbon by Combustion (Low Level)	E358-L 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 ₂ . 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 Nitrogen by Colourimetry	E366 ALS Environmental - Vancouver	Water	Chinchilla Scientific Nitrate Method, 2011	Following digestion, total nitrogen is determined colourimetrically using a discrete analyzer utilizing the vanadium chloride reduction method. This method of analysis is approved under US EPA 40 CFR Part 136 (May 2021).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U 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 Sulfide by Colourimetry (Automated Flow)	E395 ALS Environmental - Vancouver	Water	APHA 4500 -S E-Auto-Colorimetry	Sulfide is determined using the gas dialysis automated methylene blue colourimetric method. Results expressed "as H ₂ S" if reported represent the maximum possible H ₂ S concentration based on the total sulfide concentration in the sample. The H ₂ S calculation converts Total Sulphide as (S ₂ ⁻) and reports it as Total Sulphide as (H ₂ S)
Total Metals in Water by CRC ICPMS	E420 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. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Metals in Water by CRC ICPMS	E421 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. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Mercury in Water by CVAAS	E508 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 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.



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Total Hexavalent Chromium (Cr VI) by IC	E532 ALS Environmental - Vancouver	Water	APHA 3500-Cr C (Ion Chromatography)	Hexavalent Chromium is measured by Ion chromatography-Post column reaction and UV detection. Results are based on an un-filtered, field-preserved sample.
Phenols (4AAP) in Water by Colorimetry	E562 ALS Environmental - Edmonton	Water	EPA 9066	This automated method is based on the distillation of phenol and subsequent reaction of the distillate with alkaline ferricyanide (K ₃ Fe(CN) ₆) and 4-amino-antipyrine (4-AAP) to form a red complex which is measured colorimetrically.
VH and F1 by Headspace GC-FID	E581.VH+F1 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. 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 ALS Environmental - Vancouver	Water	BC MOE Lab Manual	Sample extracts are analyzed by GC-FID for BC hydrocarbon fractions.
VOCs (BC List) by Headspace GC-MS	E611C 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. Total Xylenes is the sum of m,p-Xylene & o-Xylene. Total BTEX is the sum of Benzene, Toluene, Ethylbenzene, & Total Xylenes. Total BTEX+Styrene is the sum of Total BTEX & Styrene. Total Trihalomethanes [THMs] is the sum of Bromodichloromethane, Bromoform, Chloroform, & Dibromochloromethane.
PAHs in Water by Hexane LVI GC-MS	E641A ALS Environmental - Vancouver	Water	EPA 8270E (mod)	Polycyclic Aromatic Hydrocarbons (PAHs) are analyzed by large volume injection (LVI) GC-MS.
Glycols (4 analytes) by GC-FID	E680E ALS Environmental - Vancouver	Water	EPA 8015D (mod)	Derivatized glycols are analyzed by GC-FID.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Vancouver	Water	APHA 2340B	"Hardness (as CaCO ₃), dissolved" is calculated from the sum of dissolved 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.



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
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.
Un-ionized Total Hydrogen Sulfide (calculated)	EC395 ALS Environmental - Vancouver	Water	APHA 4500 -S H	Un-ionized sulfide is calculated using results from total sulfide analysis, pH, temperature, and ionic strength of the sample. Calculation of un-ionized sulfide using total sulfide concentrations may be biased high due to particulate forms of sulfide measured during total sulfide testing.
Total Trivalent Chromium (Cr III) by Calculation	EC535 ALS Environmental - Vancouver	Water	APHA 3030B/6020A/EPA 7196A (mod)	Chromium (III)-Total is calculated as the difference between the total chromium and the total hexavalent chromium (Cr(VI)) results. The Limit of Reporting for Chromium (III) varies as a function of the test results.
VPH: VH-BTEX-Styrene	EC580A ALS Environmental - Vancouver	Water	BC MOE Lab Manual (VPH in Water and Solids) (mod)	Volatile Petroleum Hydrocarbons (VPH) is calculated as follows: VPHw = Volatile Hydrocarbons (VH C6-C10) minus benzene, toluene, ethylbenzene, xylenes (BTEX) and styrene.
LEPH and HEPH: EPH-PAH	EC600A ALS Environmental - Vancouver	Water	BC MOE Lab Manual (LEPH and HEPH)	Light Extractable Petroleum Hydrocarbons (LEPH) and Heavy Extractable Petroleum Hydrocarbons (HEPH) are calculated as follows: LEPH = Extractable Petroleum Hydrocarbons (EPH10-19) minus Acenaphthene, Acridine, Anthracene, Fluorene, Naphthalene and Phenanthrene; HEPH = Extractable Petroleum Hydrocarbons (EPH19-32) minus Benz(a)anthracene, Benzo(a)pyrene, Fluoranthene, and Pyrene.
Field pH,EC,Salinity, TDS, Cl ₂ ,ClO ₂ ,ORP,DO, Turbidity,T,T-P,o-PO ₄ ,NH ₃ ,Chloramine	EF001 ALS Environmental - Vancouver	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl ₂ ,ClO ₂ ,ORP,DO, Turbidity,T,T-P,o-PO ₄ ,NH ₃ or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

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.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Vancouver	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Nitrogen in water	EP366 ALS Environmental - Vancouver	Water	APHA 4500-P J (mod)	Samples for total nitrogen analysis are digested using a heated persulfate digestion. Nitrogen compounds are converted to nitrate in this digestion.
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Vancouver	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.



<i>Preparation Methods</i>	<i>Method / Lab</i>	<i>Matrix</i>	<i>Method Reference</i>	<i>Method Descriptions</i>
Dissolved Metals Water Filtration	EP421 ALS Environmental - Vancouver	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO ₃ .
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Vancouver	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.
VOCs Preparation for Headspace Analysis	EP581 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 the GC/MS-FID system.
PHCs and PAHs Hexane Extraction	EP601 ALS Environmental - Vancouver	Water	EPA 3511 (mod)	Petroleum Hydrocarbons (PHCs) and Polycyclic Aromatic Hydrocarbons (PAHs) are extracted using a hexane liquid-liquid extraction.
Glycols Extraction and Derivatization (BC Only)	EP680E ALS Environmental - Vancouver	Water	EPA 8015D (mod)	Aqueous sample is derivatized and extracted with organic solvent.

QUALITY CONTROL REPORT

Work Order : **VA24B4261**
Client : Triton Environmental Consultants Ltd.
Contact : [REDACTED]
Address : [REDACTED]
Telephone : [REDACTED]
Project : 11964
PO : 11964-Task 30-Phase 3C-4C
C-O-C number : ----
Sampler : ----
Site : Water Analysis
Quote number : VA23-TRIT100-012_V2
No. of samples received : 1
No. of samples analysed : 1

Page : 1 of 21
Laboratory : ALS Environmental - Vancouver
Account Manager : [REDACTED]
Address : [REDACTED]
Telephone : [REDACTED]
Date Samples Received : 18-Jun-2024 19:00
Date Analysis Commenced : 18-Jun-2024
Issue Date : 21-Jun-2024 13:33

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
[REDACTED]	Analyst	Vancouver Inorganics, Burnaby, British Columbia
	Laboratory Analyst	Edmonton Inorganics, Edmonton, Alberta
		Vancouver Metals, Burnaby, British Columbia
	Supervisor - Organics Instrumentation	Vancouver Organics, Burnaby, British Columbia
	Supervisor - Inorganic	Vancouver Inorganics, Burnaby, British Columbia
	Lab Analyst	Vancouver Metals, Burnaby, British Columbia
	Lab Assistant	Vancouver Inorganics, Burnaby, British Columbia
	Account Manager Assistant	Vancouver Administration, Burnaby, British Columbia
	Team Leader - Organics	Vancouver Organics, Burnaby, British Columbia
	Team Leader - Metals	Vancouver Metals, Burnaby, British Columbia
	Analyst	Vancouver Metals, Burnaby, British Columbia

Page : 2 of 21
Work Order : VA24B4261
Client : Triton Environmental Consultants Ltd.
Project : 11964



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: 1501038)											
VA24B4261-001	WLNG EOP	Solids, total dissolved [TDS]	----	E162	20	mg/L	217	216	0.462%	20%	----
Physical Tests (QC Lot: 1501040)											
FJ2401637-001	Anonymous	Solids, total suspended [TSS]	----	E160	3.0	mg/L	<3.0	<3.0	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1501004)											
VA24B4261-001	WLNG EOP	Nitrogen, total	7727-37-9	E366	0.060	mg/L	2.23	2.22	0.346%	20%	----
Anions and Nutrients (QC Lot: 1501005)											
VA24B4261-001	WLNG EOP	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0174	0.0170	0.0005	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1501006)											
VA24B4261-001	WLNG EOP	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: 1501045)											
VA24B4261-001	WLNG EOP	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	6.81	6.86	0.652%	20%	----
Anions and Nutrients (QC Lot: 1501046)											
VA24B4261-001	WLNG EOP	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: 1501047)											
VA24B4261-001	WLNG EOP	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: 1501048)											
VA24B4261-001	WLNG EOP	Fluoride	16984-48-8	E235.F	0.020	mg/L	0.294	0.284	3.40%	20%	----
Anions and Nutrients (QC Lot: 1501049)											
VA24B4261-001	WLNG EOP	Chloride	16887-00-6	E235.Cl	0.50	mg/L	15.7	15.7	0.0267%	20%	----
Anions and Nutrients (QC Lot: 1501050)											
VA24B4261-001	WLNG EOP	Bromide	24959-67-9	E235.Br-L	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1501003)											
VA24B4261-001	WLNG EOP	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	11.0	11.0	0.668%	20%	----
Total Sulfides (QC Lot: 1502014)											
CG2408278-001	Anonymous	Sulfide, total (as S)	18496-25-8	E395	0.0015	mg/L	<0.0015	<0.0015	0	Diff <2x LOR	----
Total Metals (QC Lot: 1501016)											
VA24B4261-001	WLNG EOP	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.104	0.110	5.62%	20%	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00120	0.00120	0.0202%	20%	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00136	0.00138	1.61%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.00514	0.00498	3.20%	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 (QC Lot: 1501016) - continued											
VA24B4261-001	WLNQ EOP	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	0.031	0.031	0.0006	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000100	mg/L	<0.0000100	<0.0000100	0	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	27.4	27.6	0.821%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000049	0.000048	0.0000008	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	0.00011	0.00012	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	0.070	0.068	0.002	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000072	0.000072	0.0000004	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0201	0.0200	0.442%	20%	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	2.80	2.89	3.05%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.112	0.111	0.460%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.00799	0.00788	1.42%	20%	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	<0.00050	<0.00050	0	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	10.7	10.9	1.78%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.0164	0.0164	0.293%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000083	0.000064	0.000020	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	6.12	6.18	0.913%	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	29.6	29.9	0.988%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.123	0.122	0.469%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	2.82	3.01	0.19	Diff <2x LOR	----
		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	0.000063	0.000065	0.000001	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	0.00351	0.00339	3.50%	20%	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	0.00018	0.00016	0.00001	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000378	0.000373	1.24%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00057	0.00060	0.00003	Diff <2x LOR	----
		Zinc, total	7440-66-6	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: 1501016) - continued											
VA24B4261-001	WLNG EOP	Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Total Metals (QC Lot: 1503133)											
VA24B4261-001	WLNG EOP	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1501079)											
VA24B4261-001	WLNG EOP	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0099	0.0109	9.94%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00117	0.00116	0.564%	20%	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00135	0.00142	5.39%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.00351	0.00360	2.75%	20%	----
		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	0.030	0.030	0.00007	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000081	0.0000076	0.0000005	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	26.8	27.4	2.06%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	0.000044	0.000043	0.000001	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	0.00011	0.000008	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00023	0.00024	0.00002	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.023	0.024	0.0007	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	0.0206	0.0200	3.14%	20%	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	2.78	2.92	4.91%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.110	0.114	2.82%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.00766	0.00762	0.444%	20%	----
		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	10.8	11.1	2.71%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.0166	0.0168	1.82%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000053	0.000052	0.000002	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	5.54	5.58	0.780%	20%	----
		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	28.9	29.8	3.15%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.120	0.121	0.750%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	2.96	2.77	0.20	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	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: 1501079) - continued											
VA24B4261-001	W LNG EOP	Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	0.000060	0.000062	0.000001	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.000010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.000010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.000030	mg/L	0.00133	0.00147	0.00015	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.000010	mg/L	0.00015	0.00015	0.000002	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000343	0.000339	1.22%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.000050	mg/L	0.00053	0.00053	0.000001	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0013	0.0013	0.00002	Diff <2x LOR	----
Zirconium, dissolved	7440-67-7	E421	0.000020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----		
Dissolved Metals (QC Lot: 1503131)											
VA24B4261-001	W LNG EOP	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Speciated Metals (QC Lot: 1502171)											
VA24B4261-001	W LNG EOP	Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
Aggregate Organics (QC Lot: 1506833)											
CG2408427-001	Anonymous	Phenols, total (4AAP)	----	E562	0.0010	mg/L	0.0063	0.0061	0.0002	Diff <2x LOR	----
Volatile Organic Compounds (QC Lot: 1501299)											
VA24B4087-001	Anonymous	Benzene	71-43-2	E611C	0.50	µg/L	0.77	0.72	0.05	Diff <2x LOR	----
		Bromodichloromethane	75-27-4	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Bromoform	75-25-2	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Carbon tetrachloride	56-23-5	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chlorobenzene	108-90-7	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chloroethane	75-00-3	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chloroform	67-66-3	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chloromethane	74-87-3	E611C	5.0	µg/L	<5.0	<5.0	0	Diff <2x LOR	----
		Dibromochloromethane	124-48-1	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorobenzene, 1,2-	95-50-1	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorobenzene, 1,3-	541-73-1	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorobenzene, 1,4-	106-46-7	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethane, 1,1-	75-34-3	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethane, 1,2-	107-06-2	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethylene, 1,1-	75-35-4	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethylene, cis-1,2-	156-59-2	E611C	0.50	µg/L	11.4	11.3	1.42%	30%	----
		Dichloroethylene, trans-1,2-	156-60-5	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
Dichloromethane	75-09-2	E611C	1.0	µg/L	<1.0	<1.0	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
Volatile Organic Compounds (QC Lot: 1501299) - continued											
VA24B4087-001	Anonymous	Dichloropropane, 1,2-	78-87-5	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloropropylene, cis-1,3-	10061-01-5	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloropropylene, trans-1,3-	10061-02-6	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Ethylbenzene	100-41-4	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Styrene	100-42-5	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethane, 1,1,1,2-	630-20-6	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethane, 1,1,2,2-	79-34-5	E611C	0.20	µg/L	<0.20	<0.20	0	Diff <2x LOR	----
		Tetrachloroethylene	127-18-4	E611C	0.50	µg/L	9.10	8.44	7.53%	30%	----
		Toluene	108-88-3	E611C	0.40	µg/L	0.44	0.42	0.02	Diff <2x LOR	----
		Trichloroethane, 1,1,1-	71-55-6	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichloroethane, 1,1,2-	79-00-5	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichloroethylene	79-01-6	E611C	0.50	µg/L	2.12	2.02	0.10	Diff <2x LOR	----
		Trichlorofluoromethane	75-69-4	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Vinyl chloride	75-01-4	E611C	0.40	µg/L	0.60	0.51	0.08	Diff <2x LOR	----
		Xylene, m+p-	179601-23-1	E611C	0.40	µg/L	1.44	1.26	0.18	Diff <2x LOR	----
		Xylene, o-	95-47-6	E611C	0.30	µg/L	0.95	0.92	0.03	Diff <2x LOR	----
Hydrocarbons (QC Lot: 1501300)											
VA24B4087-001	Anonymous	VHw (C6-C10)	----	E581.VH+F1	100	µg/L	<100	<100	0.0%	30%	----
Glycols (QC Lot: 1501266)											
VA24B4261-001	WLNG EOP	Diethylene glycol	111-46-6	E680E	5.0	mg/L	<5.0	<5.0	0	Diff <2x LOR	----
		Ethylene glycol	107-21-1	E680E	5.0	mg/L	<5.0	<5.0	0	Diff <2x LOR	----
		Propylene glycol, 1,2-	57-55-6	E680E	5.0	mg/L	<5.0	<5.0	0	Diff <2x LOR	----
		Triethylene glycol	112-27-6	E680E	5.0	mg/L	<5.0	<5.0	0	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: 1501038)						
Solids, total dissolved [TDS]	---	E162	10	mg/L	<10	---
Physical Tests (QCLot: 1501040)						
Solids, total suspended [TSS]	---	E160	3	mg/L	<3.0	---
Physical Tests (QCLot: 1501043)						
Alkalinity, total (as CaCO3)	---	E290	1	mg/L	<1.0	---
Anions and Nutrients (QCLot: 1501004)						
Nitrogen, total	7727-37-9	E366	0.03	mg/L	<0.030	---
Anions and Nutrients (QCLot: 1501005)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	---
Anions and Nutrients (QCLot: 1501006)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	---
Anions and Nutrients (QCLot: 1501045)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	---
Anions and Nutrients (QCLot: 1501046)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	---
Anions and Nutrients (QCLot: 1501047)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	---
Anions and Nutrients (QCLot: 1501048)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	---
Anions and Nutrients (QCLot: 1501049)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	---
Anions and Nutrients (QCLot: 1501050)						
Bromide	24959-67-9	E235.Br-L	0.05	mg/L	<0.050	---
Organic / Inorganic Carbon (QCLot: 1501003)						
Carbon, dissolved organic [DOC]	---	E358-L	0.5	mg/L	<0.50	---
Total Sulfides (QCLot: 1502014)						
Sulfide, total (as S)	18496-25-8	E395	0.0015	mg/L	<0.0015	---
Total Metals (QCLot: 1501016)						
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	---



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1501016) - continued						
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	----
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	----



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1503133)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1501079)						
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	----
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	----



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1501079) - continued						
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	----
Dissolved Metals (QCLot: 1503131)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Speciated Metals (QCLot: 1502171)						
Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.0005	mg/L	<0.00050	----
Aggregate Organics (QCLot: 1506833)						
Phenols, total (4AAP)	----	E562	0.001	mg/L	<0.0010	----
Volatile Organic Compounds (QCLot: 1501299)						
Benzene	71-43-2	E611C	0.5	µg/L	<0.50	----
Bromodichloromethane	75-27-4	E611C	0.5	µg/L	<0.50	----
Bromoform	75-25-2	E611C	0.5	µg/L	<0.50	----
Carbon tetrachloride	56-23-5	E611C	0.5	µg/L	<0.50	----
Chlorobenzene	108-90-7	E611C	0.5	µg/L	<0.50	----
Chloroethane	75-00-3	E611C	0.5	µg/L	<0.50	----
Chloroform	67-66-3	E611C	0.5	µg/L	<0.50	----
Chloromethane	74-87-3	E611C	5	µg/L	<5.0	----
Dibromochloromethane	124-48-1	E611C	0.5	µg/L	<0.50	----
Dichlorobenzene, 1,2-	95-50-1	E611C	0.5	µg/L	<0.50	----
Dichlorobenzene, 1,3-	541-73-1	E611C	0.5	µg/L	<0.50	----
Dichlorobenzene, 1,4-	106-46-7	E611C	0.5	µg/L	<0.50	----
Dichloroethane, 1,1-	75-34-3	E611C	0.5	µg/L	<0.50	----
Dichloroethane, 1,2-	107-06-2	E611C	0.5	µg/L	<0.50	----
Dichloroethylene, 1,1-	75-35-4	E611C	0.5	µg/L	<0.50	----
Dichloroethylene, cis-1,2-	156-59-2	E611C	0.5	µg/L	<0.50	----
Dichloroethylene, trans-1,2-	156-60-5	E611C	0.5	µg/L	<0.50	----
Dichloromethane	75-09-2	E611C	1	µg/L	<1.0	----
Dichloropropane, 1,2-	78-87-5	E611C	0.5	µg/L	<0.50	----
Dichloropropylene, cis-1,3-	10061-01-5	E611C	0.5	µg/L	<0.50	----
Dichloropropylene, trans-1,3-	10061-02-6	E611C	0.5	µg/L	<0.50	----
Ethylbenzene	100-41-4	E611C	0.5	µg/L	<0.50	----



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Volatile Organic Compounds (QCLot: 1501299) - continued						
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611C	0.5	µg/L	<0.50	----
Styrene	100-42-5	E611C	0.5	µg/L	<0.50	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611C	0.5	µg/L	<0.50	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611C	0.2	µg/L	<0.20	----
Tetrachloroethylene	127-18-4	E611C	0.5	µg/L	<0.50	----
Toluene	108-88-3	E611C	0.4	µg/L	<0.40	----
Trichloroethane, 1,1,1,-	71-55-6	E611C	0.5	µg/L	<0.50	----
Trichloroethane, 1,1,2,-	79-00-5	E611C	0.5	µg/L	<0.50	----
Trichloroethylene	79-01-6	E611C	0.5	µg/L	<0.50	----
Trichlorofluoromethane	75-69-4	E611C	0.5	µg/L	<0.50	----
Vinyl chloride	75-01-4	E611C	0.4	µg/L	<0.40	----
Xylene, m+p-	179601-23-1	E611C	0.4	µg/L	<0.40	----
Xylene, o-	95-47-6	E611C	0.3	µg/L	<0.30	----
Hydrocarbons (QCLot: 1500909)						
EPH (C10-C19)	----	E601A	250	µg/L	<250	----
EPH (C19-C32)	----	E601A	250	µg/L	<250	----
Hydrocarbons (QCLot: 1501300)						
VHw (C6-C10)	----	E581.VH+F1	100	µg/L	<100	----
Polycyclic Aromatic Hydrocarbons (QCLot: 1500910)						
Acenaphthene	83-32-9	E641A	0.01	µg/L	<0.010	----
Acenaphthylene	208-96-8	E641A	0.01	µg/L	<0.010	----
Acridine	260-94-6	E641A	0.01	µg/L	<0.010	----
Anthracene	120-12-7	E641A	0.01	µg/L	<0.010	----
Benz(a)anthracene	56-55-3	E641A	0.01	µg/L	<0.010	----
Benzo(a)pyrene	50-32-8	E641A	0.005	µg/L	<0.0050	----
Benzo(b+j)fluoranthene	n/a	E641A	0.01	µg/L	<0.010	----
Benzo(g,h,i)perylene	191-24-2	E641A	0.01	µg/L	<0.010	----
Benzo(k)fluoranthene	207-08-9	E641A	0.01	µg/L	<0.010	----
Chrysene	218-01-9	E641A	0.01	µg/L	<0.010	----
Dibenz(a,h)anthracene	53-70-3	E641A	0.005	µg/L	<0.0050	----
Fluoranthene	206-44-0	E641A	0.01	µg/L	<0.010	----
Fluorene	86-73-7	E641A	0.01	µg/L	<0.010	----
Indeno(1,2,3-c,d)pyrene	193-39-5	E641A	0.01	µg/L	<0.010	----
Methylnaphthalene, 1-	90-12-0	E641A	0.01	µg/L	<0.010	----
Methylnaphthalene, 2-	91-57-6	E641A	0.01	µg/L	<0.010	----



Sub-Matrix: **Water**

<i>Analyte</i>	<i>CAS Number</i>	<i>Method</i>	<i>LOR</i>	<i>Unit</i>	<i>Result</i>	<i>Qualifier</i>
Polycyclic Aromatic Hydrocarbons (QCLot: 1500910) - continued						
Naphthalene	91-20-3	E641A	0.05	µg/L	<0.050	----
Phenanthrene	85-01-8	E641A	0.02	µg/L	<0.020	----
Pyrene	129-00-0	E641A	0.01	µg/L	<0.010	----
Quinoline	91-22-5	E641A	0.05	µg/L	<0.050	----
Glycols (QCLot: 1501266)						
Diethylene glycol	111-46-6	E680E	5	mg/L	<5.0	----
Ethylene glycol	107-21-1	E680E	5	mg/L	<5.0	----
Propylene glycol, 1,2-	57-55-6	E680E	5	mg/L	<5.0	----
Triethylene glycol	112-27-6	E680E	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: 1501038)									
Solids, total dissolved [TDS]	----	E162	10	mg/L	1000 mg/L	108	85.0	115	----
Physical Tests (QCLot: 1501040)									
Solids, total suspended [TSS]	----	E160	3	mg/L	150 mg/L	93.7	85.0	115	----
Physical Tests (QCLot: 1501043)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	500 mg/L	108	85.0	115	----
Anions and Nutrients (QCLot: 1501004)									
Nitrogen, total	7727-37-9	E366	0.03	mg/L	0.5 mg/L	93.9	75.0	125	----
Anions and Nutrients (QCLot: 1501005)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.05 mg/L	84.9	80.0	120	----
Anions and Nutrients (QCLot: 1501006)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	110	85.0	115	----
Anions and Nutrients (QCLot: 1501045)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1501046)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	99.0	90.0	110	----
Anions and Nutrients (QCLot: 1501047)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1501048)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	98.7	90.0	110	----
Anions and Nutrients (QCLot: 1501049)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	99.3	90.0	110	----
Anions and Nutrients (QCLot: 1501050)									
Bromide	24959-67-9	E235.Br-L	0.05	mg/L	0.5 mg/L	99.1	85.0	115	----
Organic / Inorganic Carbon (QCLot: 1501003)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	102	80.0	120	----
Total Sulfides (QCLot: 1502014)									
Sulfide, total (as S)	18496-25-8	E395	0.0015	mg/L	0.08 mg/L	116	80.0	120	----
Total Metals (QCLot: 1501016)									



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: 1501016) - continued									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	97.2	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	105	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	101	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	95.0	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	97.8	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	99.5	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	103	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	102	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	98.8	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	100	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	100	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	100	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	101	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	99.2	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	106	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	100.0	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	103	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	97.6	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	102	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	105	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	97.9	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	111	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	97.4	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	95.0	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	103	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	99.4	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	98.0	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	100	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: 1501016) - continued									
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	99.6	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	97.1	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	98.3	80.0	120	----
Total Metals (QCLot: 1503133)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	104	80.0	120	----
Dissolved Metals (QCLot: 1501079)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	103	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	104	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	111	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	109	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	98.7	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	100	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	102	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	105	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	106	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	102	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	106	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	105	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	106	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	102	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	103	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	106	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	108	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	105	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	105	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	111	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	110	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	109	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	103	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	110	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	98.8	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	106	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	112	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	105	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
Dissolved Metals (QCLot: 1501079) - continued									
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	98.8	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	104	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	97.0	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	103	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	104	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	100	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	102	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	105	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	104	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	99.4	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	99.0	80.0	120	----
Speciated Metals (QCLot: 1502171)									
Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.0005	mg/L	0.25 mg/L	103	80.0	120	----
Aggregate Organics (QCLot: 1506833)									
Phenols, total (4AAP)	----	E562	0.001	mg/L	0.02 mg/L	101	85.0	115	----
Volatile Organic Compounds (QCLot: 1501299)									
Benzene	71-43-2	E611C	0.5	µg/L	100 µg/L	98.6	70.0	130	----
Bromodichloromethane	75-27-4	E611C	0.5	µg/L	100 µg/L	89.7	70.0	130	----
Bromoform	75-25-2	E611C	0.5	µg/L	100 µg/L	82.7	70.0	130	----
Carbon tetrachloride	56-23-5	E611C	0.5	µg/L	100 µg/L	102	70.0	130	----
Chlorobenzene	108-90-7	E611C	0.5	µg/L	100 µg/L	96.1	70.0	130	----
Chloroethane	75-00-3	E611C	0.5	µg/L	100 µg/L	110	60.0	140	----
Chloroform	67-66-3	E611C	0.5	µg/L	100 µg/L	97.1	70.0	130	----
Chloromethane	74-87-3	E611C	5	µg/L	100 µg/L	120	60.0	140	----
Dibromochloromethane	124-48-1	E611C	0.5	µg/L	100 µg/L	90.1	70.0	130	----
Dichlorobenzene, 1,2-	95-50-1	E611C	0.5	µg/L	100 µg/L	95.4	70.0	130	----
Dichlorobenzene, 1,3-	541-73-1	E611C	0.5	µg/L	100 µg/L	102	70.0	130	----
Dichlorobenzene, 1,4-	106-46-7	E611C	0.5	µg/L	100 µg/L	103	70.0	130	----
Dichloroethane, 1,1-	75-34-3	E611C	0.5	µg/L	100 µg/L	94.7	70.0	130	----
Dichloroethane, 1,2-	107-06-2	E611C	0.5	µg/L	100 µg/L	89.4	70.0	130	----
Dichloroethylene, 1,1-	75-35-4	E611C	0.5	µg/L	100 µg/L	95.6	70.0	130	----
Dichloroethylene, cis-1,2-	156-59-2	E611C	0.5	µg/L	100 µg/L	92.3	70.0	130	----
Dichloroethylene, trans-1,2-	156-60-5	E611C	0.5	µg/L	100 µg/L	95.3	70.0	130	----



Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Volatile Organic Compounds (QCLot: 1501299) - continued									
Dichloromethane	75-09-2	E611C	1	µg/L	100 µg/L	95.0	70.0	130	----
Dichloropropane, 1,2-	78-87-5	E611C	0.5	µg/L	100 µg/L	94.2	70.0	130	----
Dichloropropylene, cis-1,3-	10061-01-5	E611C	0.5	µg/L	100 µg/L	94.8	70.0	130	----
Dichloropropylene, trans-1,3-	10061-02-6	E611C	0.5	µg/L	100 µg/L	89.6	70.0	130	----
Ethylbenzene	100-41-4	E611C	0.5	µg/L	100 µg/L	99.3	70.0	130	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611C	0.5	µg/L	100 µg/L	100	70.0	130	----
Styrene	100-42-5	E611C	0.5	µg/L	100 µg/L	98.3	70.0	130	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611C	0.5	µg/L	100 µg/L	93.2	70.0	130	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611C	0.2	µg/L	100 µg/L	81.3	70.0	130	----
Tetrachloroethylene	127-18-4	E611C	0.5	µg/L	100 µg/L	99.4	70.0	130	----
Toluene	108-88-3	E611C	0.4	µg/L	100 µg/L	103	70.0	130	----
Trichloroethane, 1,1,1-	71-55-6	E611C	0.5	µg/L	100 µg/L	103	70.0	130	----
Trichloroethane, 1,1,2-	79-00-5	E611C	0.5	µg/L	100 µg/L	86.7	70.0	130	----
Trichloroethylene	79-01-6	E611C	0.5	µg/L	100 µg/L	98.2	70.0	130	----
Trichlorofluoromethane	75-69-4	E611C	0.5	µg/L	100 µg/L	117	60.0	140	----
Vinyl chloride	75-01-4	E611C	0.4	µg/L	100 µg/L	118	60.0	140	----
Xylene, m+p-	179601-23-1	E611C	0.4	µg/L	200 µg/L	101	70.0	130	----
Xylene, o-	95-47-6	E611C	0.3	µg/L	100 µg/L	95.2	70.0	130	----
Hydrocarbons (QCLot: 1500909)									
EPH (C10-C19)	---	E601A	250	µg/L	6490 µg/L	102	70.0	130	----
EPH (C19-C32)	---	E601A	250	µg/L	3360 µg/L	105	70.0	130	----
Hydrocarbons (QCLot: 1501300)									
VHw (C6-C10)	---	E581.VH+F1	100	µg/L	6310 µg/L	87.6	70.0	130	----
Polycyclic Aromatic Hydrocarbons (QCLot: 1500910)									
Acenaphthene	83-32-9	E641A	0.01	µg/L	0.5 µg/L	112	60.0	130	----
Acenaphthylene	208-96-8	E641A	0.01	µg/L	0.5 µg/L	112	60.0	130	----
Acridine	260-94-6	E641A	0.01	µg/L	0.5 µg/L	100.0	60.0	130	----
Anthracene	120-12-7	E641A	0.01	µg/L	0.5 µg/L	108	60.0	130	----
Benz(a)anthracene	56-55-3	E641A	0.01	µg/L	0.5 µg/L	92.7	60.0	130	----
Benzo(a)pyrene	50-32-8	E641A	0.005	µg/L	0.5 µg/L	96.7	60.0	130	----
Benzo(b+j)fluoranthene	n/a	E641A	0.01	µg/L	0.5 µg/L	96.3	60.0	130	----
Benzo(g,h,i)perylene	191-24-2	E641A	0.01	µg/L	0.5 µg/L	128	60.0	130	----
Benzo(k)fluoranthene	207-08-9	E641A	0.01	µg/L	0.5 µg/L	94.5	60.0	130	----
Chrysene	218-01-9	E641A	0.01	µg/L	0.5 µg/L	102	60.0	130	----



Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Polycyclic Aromatic Hydrocarbons (QCLot: 1500910) - continued									
Dibenz(a,h)anthracene	53-70-3	E641A	0.005	µg/L	0.5 µg/L	111	60.0	130	----
Fluoranthene	206-44-0	E641A	0.01	µg/L	0.5 µg/L	105	60.0	130	----
Fluorene	86-73-7	E641A	0.01	µg/L	0.5 µg/L	101	60.0	130	----
Indeno(1,2,3-c,d)pyrene	193-39-5	E641A	0.01	µg/L	0.5 µg/L	123	60.0	130	----
Methylnaphthalene, 1-	90-12-0	E641A	0.01	µg/L	0.5 µg/L	99.2	60.0	130	----
Methylnaphthalene, 2-	91-57-6	E641A	0.01	µg/L	0.5 µg/L	109	60.0	130	----
Naphthalene	91-20-3	E641A	0.05	µg/L	0.5 µg/L	103	50.0	130	----
Phenanthrene	85-01-8	E641A	0.02	µg/L	0.5 µg/L	104	60.0	130	----
Pyrene	129-00-0	E641A	0.01	µg/L	0.5 µg/L	104	60.0	130	----
Quinoline	91-22-5	E641A	0.05	µg/L	0.5 µg/L	104	60.0	130	----
Glycols (QCLot: 1501266)									
Diethylene glycol	111-46-6	E680E	5	mg/L	25 mg/L	84.4	70.0	130	----
Ethylene glycol	107-21-1	E680E	5	mg/L	25 mg/L	83.8	70.0	130	----
Propylene glycol, 1,2-	57-55-6	E680E	5	mg/L	25 mg/L	77.8	70.0	130	----
Triethylene glycol	112-27-6	E680E	5	mg/L	25 mg/L	84.0	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 (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1501004)										
VA24B4268-002	Anonymous	Nitrogen, total	7727-37-9	E366	0.394 mg/L	0.4 mg/L	98.4	70.0	130	----
Anions and Nutrients (QCLot: 1501006)										
VA24B4268-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.107 mg/L	0.1 mg/L	107	75.0	125	----
Anions and Nutrients (QCLot: 1501045)										
VA24B4178-002	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	485 mg/L	500 mg/L	97.0	75.0	125	----
Anions and Nutrients (QCLot: 1501046)										
VA24B4268-002	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.55 mg/L	2.5 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1501047)										
VA24B4268-002	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.518 mg/L	0.5 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 1501049)										
VA24B4268-002	Anonymous	Chloride	16887-00-6	E235.Cl	102 mg/L	100 mg/L	102	75.0	125	----
Total Sulfides (QCLot: 1502014)										
CG2408278-002	Anonymous	Sulfide, total (as S)	18496-25-8	E395	0.227 mg/L	0.2 mg/L	113	75.0	125	----
Aggregate Organics (QCLot: 1506833)										
CG2408427-002	Anonymous	Phenols, total (4AAP)	----	E562	0.0161 mg/L	0.02 mg/L	80.3	75.0	125	----
Volatile Organic Compounds (QCLot: 1501299)										
VA24B4261-001	WLNG EOP	Benzene	71-43-2	E611C	102 µg/L	100 µg/L	102	60.0	140	----
		Bromodichloromethane	75-27-4	E611C	98.0 µg/L	100 µg/L	98.0	60.0	140	----
		Bromoform	75-25-2	E611C	88.2 µg/L	100 µg/L	88.2	60.0	140	----
		Carbon tetrachloride	56-23-5	E611C	101 µg/L	100 µg/L	101	60.0	140	----
		Chlorobenzene	108-90-7	E611C	97.8 µg/L	100 µg/L	97.8	60.0	140	----
		Chloroethane	75-00-3	E611C	106 µg/L	100 µg/L	106	50.0	150	----
		Chloroform	67-66-3	E611C	102 µg/L	100 µg/L	102	60.0	140	----
		Chloromethane	74-87-3	E611C	111 µg/L	100 µg/L	111	50.0	150	----
		Dibromochloromethane	124-48-1	E611C	98.0 µg/L	100 µg/L	98.0	60.0	140	----
		Dichlorobenzene, 1,2-	95-50-1	E611C	97.5 µg/L	100 µg/L	97.5	60.0	140	----
		Dichlorobenzene, 1,3-	541-73-1	E611C	101 µg/L	100 µg/L	101	60.0	140	----
		Dichlorobenzene, 1,4-	106-46-7	E611C	105 µg/L	100 µg/L	105	60.0	140	----
		Dichloroethane, 1,1-	75-34-3	E611C	97.9 µg/L	100 µg/L	97.9	60.0	140	----
		Dichloroethane, 1,2-	107-06-2	E611C	99.7 µg/L	100 µg/L	99.7	60.0	140	----
		Dichloroethylene, 1,1-	75-35-4	E611C	93.3 µg/L	100 µg/L	93.3	60.0	140	----
		Dichloroethylene, cis-1,2-	156-59-2	E611C	96.8 µg/L	100 µg/L	96.8	60.0	140	----
		Dichloroethylene, trans-1,2-	156-60-5	E611C	97.1 µg/L	100 µg/L	97.1	60.0	140	----
		Dichloromethane	75-09-2	E611C	102 µg/L	100 µg/L	102	60.0	140	----
		Dichloropropane, 1,2-	78-87-5	E611C	100 µg/L	100 µg/L	100	60.0	140	----



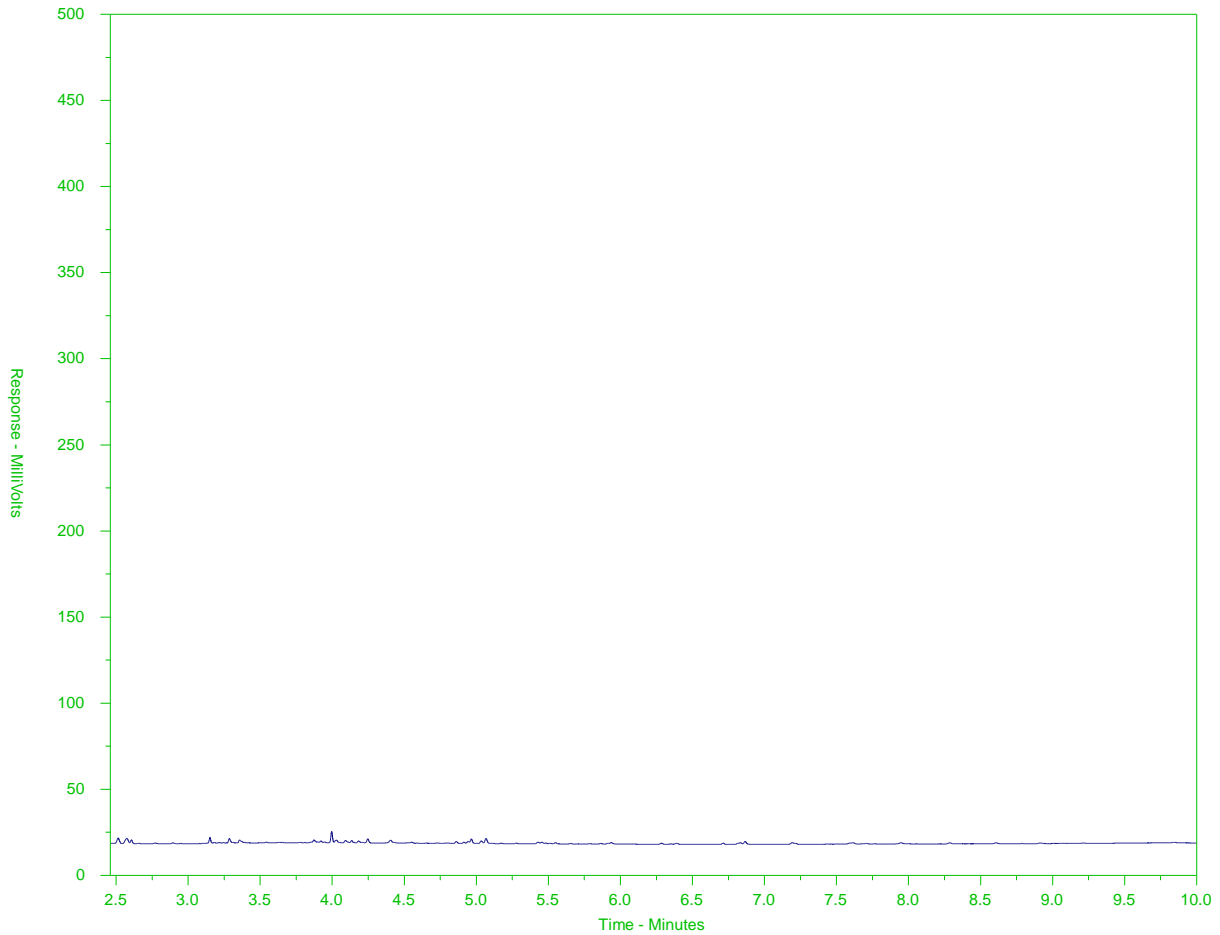
Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Volatile Organic Compounds (QCLot: 1501299) - continued										
VA24B4261-001	WLNG EOP	Dichloropropylene, cis-1,3-	10061-01-5	E611C	105 µg/L	100 µg/L	105	60.0	140	----
		Dichloropropylene, trans-1,3-	10061-02-6	E611C	98.5 µg/L	100 µg/L	98.5	60.0	140	----
		Ethylbenzene	100-41-4	E611C	96.0 µg/L	100 µg/L	96.0	60.0	140	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611C	103 µg/L	100 µg/L	103	60.0	140	----
		Styrene	100-42-5	E611C	102 µg/L	100 µg/L	102	60.0	140	----
		Tetrachloroethane, 1,1,1,2-	630-20-6	E611C	96.2 µg/L	100 µg/L	96.2	60.0	140	----
		Tetrachloroethane, 1,1,2,2-	79-34-5	E611C	90.6 µg/L	100 µg/L	90.6	60.0	140	----
		Tetrachloroethylene	127-18-4	E611C	95.9 µg/L	100 µg/L	95.9	60.0	140	----
		Toluene	108-88-3	E611C	101 µg/L	100 µg/L	101	60.0	140	----
		Trichloroethane, 1,1,1-	71-55-6	E611C	103 µg/L	100 µg/L	103	60.0	140	----
		Trichloroethane, 1,1,2-	79-00-5	E611C	94.3 µg/L	100 µg/L	94.3	60.0	140	----
		Trichloroethylene	79-01-6	E611C	100 µg/L	100 µg/L	100	60.0	140	----
		Trichlorofluoromethane	75-69-4	E611C	111 µg/L	100 µg/L	111	50.0	150	----
		Vinyl chloride	75-01-4	E611C	108 µg/L	100 µg/L	108	50.0	150	----
		Xylene, m+p-	179601-23-1	E611C	198 µg/L	200 µg/L	99.2	60.0	140	----
		Xylene, o-	95-47-6	E611C	94.2 µg/L	100 µg/L	94.2	60.0	140	----
Hydrocarbons (QCLot: 1501300)										
VA24B4261-001	WLNG EOP	VHw (C6-C10)	----	E581.VH+F1	5200 µg/L	6310 µg/L	82.3	60.0	140	----

BC EPH HYDROCARBON DISTRIBUTION REPORT



ALS Sample ID: VA24B4261-001-E601A
Client Sample ID: WLNG EOP



EPH10-19		EPH19-32	
nC10	nC19		nC32
174°C	330°C		467°C
346°F	626°F		873°F
Gasoline		Motor Oils/ Lube Oils/ Grease	
Diesel/ Jet Fuels			

The BC EPH Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.


The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and three n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

A "-L-" in the sample ID denotes a low level sample. A "-S-" denotes a silica gel cleaned sample.




Note: This chromatogram was produced using GC conditions that are specific to the ALS Canada EPH method. Refer to the ALS Canada EPH Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

Report To Contact and company name below will appear on the final report		Report Format / Distribution Select Report Format: <input type="checkbox"/> PDF <input type="checkbox"/> EXCEL <input type="checkbox"/> EDD (DIGITAL) Quality Control (QC) Report with Report <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked Select Distribution: <input type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX			Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply) Regular [R] <input type="checkbox"/> Standard TAT if received by 3 pm - business days - no surcharges apply PRIORITY (Business Days) 4 day [P4-20%] <input type="checkbox"/> 3 day [P3-25%] <input type="checkbox"/> 2 day [P2-50%] <input type="checkbox"/> EMERGENCY 1 Business day [E1 - 100%] <input checked="" type="checkbox"/> Same Day, Weekend or Statutory holiday [E2 - 200% (Laboratory opening fees may apply)] <input type="checkbox"/>																																																																																																																																																																																																																																																																																																																																										
Company: Triton Environmental Contact: Phone: Street: City/Province: Postal Code:	Invoice To Same as Report To <input type="checkbox"/> YES <input type="checkbox"/> NO Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO Company: Contact:	Invoice Distribution Select Invoice Distribution: <input type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX Invoice Distribution Email 1 or Fax Email 2 Email 3			Analysis Request Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below <table border="1"> <thead> <tr> <th></th> <th>F</th> <th></th> <th></th> <th></th> <th>P</th> <th>P</th> <th>P</th> <th>P</th> <th>F/P</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>Total metals + mercury</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Dissolved metals + mercury</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Total hexavalent chromium</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Total trivalent chromium</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>TSS, TDS, T-Alkalinity, Anions scan (Br, Cl, F)</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Total sulfide (low) (as I2S)</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Unionized Sulfide (low)</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Nutrients (ammonia, ammonium, total nitrogen, total phosphorus, phenols)</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>VOC/VPH</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>EPH, PAH, LEPH/HEPH</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>DOC</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Glycols</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>General parameters (alkalinity)</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </tbody> </table>											F				P	P	P	P	F/P													Total metals + mercury																							Dissolved metals + mercury																							Total hexavalent chromium																							Total trivalent chromium																							TSS, TDS, T-Alkalinity, Anions scan (Br, Cl, F)																							Total sulfide (low) (as I2S)																							Unionized Sulfide (low)																							Nutrients (ammonia, ammonium, total nitrogen, total phosphorus, phenols)																							VOC/VPH																							EPH, PAH, LEPH/HEPH																							DOC																							Glycols																							General parameters (alkalinity)																						
	F				P	P	P	P	F/P																																																																																																																																																																																																																																																																																																																																						
Total metals + mercury																																																																																																																																																																																																																																																																																																																																															
Dissolved metals + mercury																																																																																																																																																																																																																																																																																																																																															
Total hexavalent chromium																																																																																																																																																																																																																																																																																																																																															
Total trivalent chromium																																																																																																																																																																																																																																																																																																																																															
TSS, TDS, T-Alkalinity, Anions scan (Br, Cl, F)																																																																																																																																																																																																																																																																																																																																															
Total sulfide (low) (as I2S)																																																																																																																																																																																																																																																																																																																																															
Unionized Sulfide (low)																																																																																																																																																																																																																																																																																																																																															
Nutrients (ammonia, ammonium, total nitrogen, total phosphorus, phenols)																																																																																																																																																																																																																																																																																																																																															
VOC/VPH																																																																																																																																																																																																																																																																																																																																															
EPH, PAH, LEPH/HEPH																																																																																																																																																																																																																																																																																																																																															
DOC																																																																																																																																																																																																																																																																																																																																															
Glycols																																																																																																																																																																																																																																																																																																																																															
General parameters (alkalinity)																																																																																																																																																																																																																																																																																																																																															
Project Information ALS Account # / Quote #: VA23-TRIT100-012 Job #: 11964 PO / AFE: 11964 - Task 30 - Phase 3C-4C LSD:		Oil and Gas Required Fields (client use) AFE/Cost Center: PO# Major/Minor Code: Routing Code: Requisitioner: Location:			Analysis Request Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below																																																																																																																																																																																																																																																																																																																																										
ALS Lab Work Order # (lab use only):		ALS Contact: Sampler:			Analysis Request Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below																																																																																																																																																																																																																																																																																																																																										
ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Analysis Request Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below										SAMPLES ON HOLD	Sample is hazardous (please provide further details)	NUMBER OF CONTAINERS																																																																																																																																																																																																																																																																																																																														
	BCR EOP	18 Jun 24	15:30	Water	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R																																																																																																																																																																																																																																																																																																																								
	WLNG EOP	18-Jun-24	15:30	Water	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	15																																																																																																																																																																																																																																																																																																																							
	Duplicate			Water	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	15																																																																																																																																																																																																																																																																																																																							
	Field Blank				R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	15																																																																																																																																																																																																																																																																																																																							
	Trip Blank				R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	15																																																																																																																																																																																																																																																																																																																							
Drinking Water (DW) Samples¹ (client use)		Special Instructions / Specify Criteria										SHIPMENT RELEASE (client use) 18-Jun-24 Time: 15:30 Received by:																																																																																																																																																																																																																																																																																																																																			
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input type="checkbox"/> NO		Sample Condition AS-RECEIVED (lab use only) Frozen <input type="checkbox"/> SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/> Ice Packs <input checked="" type="checkbox"/> Ice Cubes <input type="checkbox"/> Custody seal intact Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Cooling Initiated: <input type="checkbox"/>										INITIAL COOLER TEMPERATURES °C FINAL COOLER TEMPERATURES °C 16																																																																																																																																																																																																																																																																																																																																			
Are samples for human consumption/ use? <input type="checkbox"/> YES <input type="checkbox"/> NO		FINAL SHIPMENT RECEPTION (lab use only) Time: Received by: Date: Time:										18-Jun-24 Time: 15:30 Received by: Date: Time:																																																																																																																																																																																																																																																																																																																																			

Environmental Division
 Vancouver
 Work Order Reference
VA24B4261

 Telephone: +1 604 263 4109

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.

CERTIFICATE OF ANALYSIS

Work Order : **VA24B4438**
Client : **Triton Environmental Consultants Ltd.**
Contact : 
Address : 
Telephone : 
Project : 11964
PO : 11964-Task 30-Phase3C-4C
C-O-C number : ----
Sampler : ----
Site : Water Analysis
Quote number : VA23-TRIT100-012_V2
No. of samples received : 4
No. of samples analysed : 4

Page : 1 of 10
Laboratory : ALS Environmental - Vancouver
Account Manager : 
Address : 
Telephone : 
Date Samples Received : 19-Jun-2024 17:25
Date Analysis Commenced : 19-Jun-2024
Issue Date : 21-Jun-2024 13:04

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>
	Laboratory Analyst	Inorganics, Edmonton, Alberta
	Supervisor - Inorganic	Metals, Burnaby, British Columbia
	Lab Analyst	Inorganics, Burnaby, British Columbia
	Department Manager - Inorganics	Metals, Burnaby, British Columbia
	Lab Assistant	Inorganics, Burnaby, British Columbia
	Account Manager Assistant	Inorganics, Burnaby, British Columbia
	Team Leader - Organics	Administration, Burnaby, British Columbia
	Team Leader - Metals	Organics, Burnaby, British Columbia
	Team Leader - Metals	Metals, Burnaby, British Columbia
	Supervisor - Water Quality Instrumentation	Organics, Burnaby, British Columbia
		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
-	no units
°C	degrees celsius
µg/L	micrograms per litre
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
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.

Sample Comments

Sample	Client Id	Comment
VA24B4438-001	WLNG EOP	Suspected False Positives occurred for DCM in VA24B4438-1 and -3. Limits of Reporting were increased to above detected value.
VA24B4438-003	Field Blank	Suspected False Positives occurred for DCM in VA24B4438-1 and -3. Limits of Reporting were increased to above detected value.

Qualifiers

Qualifier	Description
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
SFPR	Suspected False Positive Result, based on detection in Lab Blanks and/or Field Blanks, or other known issues.



Analytical Results

Sub-Matrix: Water					Client sample ID	WLNG EOP	Duplicate	Field Blank	Trip Blank	----
(Matrix: Water)					Client sampling date / time	19-Jun-2024 13:45	19-Jun-2024 13:50	19-Jun-2024 14:15	19-Jun-2024 00:00	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4438-001	VA24B4438-002	VA24B4438-003	VA24B4438-004	-----	
					Result	Result	Result	Result	----	
Field Tests										
Conductivity, field	----	EF001/VA	0.01	µS/cm	290.00	----	1.0000	----	----	
pH, field	----	EF001/VA	0.01	pH units	7.37	----	6.89	----	----	
Temperature, field	----	EF001/VA	0.01	°C	21.9	----	21.7	----	----	
Physical Tests										
Hardness (as CaCO ₃), dissolved	----	EC100/VA	0.60	mg/L	66.4	67.2	<0.60	----	----	
Hardness (as CaCO ₃), from total Ca/Mg	----	EC100A/VA	0.60	mg/L	69.1	68.5	<0.60	<0.60	----	
Solids, total dissolved [TDS]	----	E162/VA	10	mg/L	194	185	<10	<10	----	
Solids, total suspended [TSS]	----	E160/VA	3.0	mg/L	<3.0	<3.0	<3.0	<3.0	----	
Alkalinity, total (as CaCO ₃)	----	E290/VA	2.0	mg/L	119	119	<2.0	<2.0	----	
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L	0.0177	0.0163	<0.0050	<0.0050	----	
Bromide	24959-67-9	E235.Br-L/VA	0.050	mg/L	<0.050	<0.050	<0.050	<0.050	----	
Chloride	16887-00-6	E235.Cl/VA	0.50	mg/L	15.9	16.0	<0.50	<0.50	----	
Fluoride	16984-48-8	E235.F/VA	0.020	mg/L	0.363	0.360	<0.020	<0.020	----	
Nitrate (as N)	14797-55-8	E235.NO ₃ -L/V A	0.0050	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	----	
Nitrite (as N)	14797-65-0	E235.NO ₂ -L/V A	0.0010	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	----	
Nitrogen, total	7727-37-9	E366/VA	0.030	mg/L	1.39	1.42	<0.030	<0.030	----	
Phosphorus, total	7723-14-0	E372-U/VA	0.0020	mg/L	0.0182	0.0183	<0.0020	<0.0020	----	
Sulfate (as SO ₄)	14808-79-8	E235.SO ₄ /VA	0.30	mg/L	7.26	7.22	<0.30	<0.30	----	
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/VA	0.50	mg/L	7.00	7.08	<0.50	----	----	
Total Sulfides										
Sulfide, total (as S)	18496-25-8	E395/VA	0.0015	mg/L	0.0018	<0.0015	<0.0015	<0.0015	----	
Sulfide, un-ionized (as H ₂ S), from total	7783-06-4	EC395/VA	0.0015	mg/L	<0.0015	----	<0.0015	----	----	
Sulfide, total (as H ₂ S)	7783-06-4	E395/VA	0.0016	mg/L	0.0019	<0.0016	<0.0016	<0.0016	----	
Total Metals										
Aluminum, total	7429-90-5	E420/VA	0.0030	mg/L	0.0091	0.0092	<0.0030	<0.0030	----	
Antimony, total	7440-36-0	E420/VA	0.00010	mg/L	0.00094	0.00091	<0.00010	<0.00010	----	



Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	W LNG EOP	Duplicate	Field Blank	Trip Blank	----
Client sampling date / time					19-Jun-2024 13:45	19-Jun-2024 13:50	19-Jun-2024 14:15	19-Jun-2024 00:00	----	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4438-001	VA24B4438-002	VA24B4438-003	VA24B4438-004	-----	
					Result	Result	Result	Result	----	
Total Metals										
Arsenic, total	7440-38-2	E420/VA	0.00010	mg/L	0.00158	0.00159	<0.00010	<0.00010	----	
Barium, total	7440-39-3	E420/VA	0.00010	mg/L	0.00316	0.00320	<0.00010	<0.00010	----	
Beryllium, total	7440-41-7	E420/VA	0.000100	mg/L	<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	----	
Boron, total	7440-42-8	E420/VA	0.010	mg/L	0.029	0.029	<0.010	<0.010	----	
Cadmium, total	7440-43-9	E420/VA	0.0000050	mg/L	<0.0000100 ^{DLM}	<0.0000100 ^{DLM}	<0.0000050	<0.0000050	----	
Calcium, total	7440-70-2	E420/VA	0.050	mg/L	23.7	23.4	<0.050	<0.050	----	
Cesium, total	7440-46-2	E420/VA	0.000010	mg/L	0.000045	0.000046	<0.000010	<0.000010	----	
Chromium, total	7440-47-3	E420/VA	0.00050	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	----	
Cobalt, total	7440-48-4	E420/VA	0.00010	mg/L	0.00011	0.00011	<0.00010	<0.00010	----	
Copper, total	7440-50-8	E420/VA	0.00050	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	----	
Iron, total	7439-89-6	E420/VA	0.010	mg/L	0.018	0.019	<0.010	<0.010	----	
Lead, total	7439-92-1	E420/VA	0.000050	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	----	
Lithium, total	7439-93-2	E420/VA	0.0010	mg/L	0.0196	0.0198	<0.0010	<0.0010	----	
Magnesium, total	7439-95-4	E420/VA	0.0050	mg/L	2.40	2.44	<0.0050	<0.0050	----	
Manganese, total	7439-96-5	E420/VA	0.00010	mg/L	0.108	0.107	<0.00010	<0.00010	----	
Mercury, total	7439-97-6	E508/VA	0.0000050	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	----	
Molybdenum, total	7439-98-7	E420/VA	0.000050	mg/L	0.00857	0.00837	<0.000050	<0.000050	----	
Nickel, total	7440-02-0	E420/VA	0.00050	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	----	
Phosphorus, total	7723-14-0	E420/VA	0.050	mg/L	<0.050	<0.050	<0.050	<0.050	----	
Potassium, total	7440-09-7	E420/VA	0.050	mg/L	10.4	10.2	<0.050	<0.050	----	
Rubidium, total	7440-17-7	E420/VA	0.00020	mg/L	0.0166	0.0159	<0.00020	<0.00020	----	
Selenium, total	7782-49-2	E420/VA	0.000050	mg/L	0.000054	0.000050	<0.000050	<0.000050	----	
Silicon, total	7440-21-3	E420/VA	0.10	mg/L	5.32	5.38	<0.10	<0.10	----	
Silver, total	7440-22-4	E420/VA	0.000010	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	----	
Sodium, total	7440-23-5	E420/VA	0.050	mg/L	27.9	27.6	<0.050	<0.050	----	
Strontium, total	7440-24-6	E420/VA	0.00020	mg/L	0.105	0.102	<0.00020	<0.00020	----	
Sulfur, total	7704-34-9	E420/VA	0.50	mg/L	2.40	2.37	<0.50	<0.50	----	
Tellurium, total	13494-80-9	E420/VA	0.00020	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	----	
Thallium, total	7440-28-0	E420/VA	0.000010	mg/L	0.000059	0.000058	<0.000010	<0.000010	----	



Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	W LNG EOP	Duplicate	Field Blank	Trip Blank	----
Client sampling date / time					19-Jun-2024 13:45	19-Jun-2024 13:50	19-Jun-2024 14:15	19-Jun-2024 00:00	----	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4438-001	VA24B4438-002	VA24B4438-003	VA24B4438-004	-----	
					Result	Result	Result	Result	----	
Total Metals										
Thorium, total	7440-29-1	E420/VA	0.00010	mg/L	<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	----	
Titanium, total	7440-32-6	E420/VA	0.00030	mg/L	<0.00030	<0.00030	<0.00030	<0.00030	----	
Tungsten, total	7440-33-7	E420/VA	0.00010	mg/L	0.00025	0.00025	<0.00010	<0.00010	----	
Uranium, total	7440-61-1	E420/VA	0.000010	mg/L	0.000450	0.000441	<0.000010	<0.000010	----	
Vanadium, total	7440-62-2	E420/VA	0.00050	mg/L	0.00074	0.00071	<0.00050	<0.00050	----	
Zinc, total	7440-66-6	E420/VA	0.0030	mg/L	<0.0030	<0.0030	<0.0030	<0.0030	----	
Zirconium, total	7440-67-7	E420/VA	0.00020	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	----	
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/VA	0.0010	mg/L	0.0028	0.0032	<0.0010	----	----	
Antimony, dissolved	7440-36-0	E421/VA	0.00010	mg/L	0.00090	0.00090	<0.00010	----	----	
Arsenic, dissolved	7440-38-2	E421/VA	0.00010	mg/L	0.00148	0.00151	<0.00010	----	----	
Barium, dissolved	7440-39-3	E421/VA	0.00010	mg/L	0.00277	0.00285	<0.00010	----	----	
Beryllium, dissolved	7440-41-7	E421/VA	0.000100	mg/L	<0.000100	<0.000100	<0.000100	----	----	
Bismuth, dissolved	7440-69-9	E421/VA	0.000050	mg/L	<0.000050	<0.000050	<0.000050	----	----	
Boron, dissolved	7440-42-8	E421/VA	0.010	mg/L	0.028	0.028	<0.010	----	----	
Cadmium, dissolved	7440-43-9	E421/VA	0.0000050	mg/L	<0.0000100 ^{DLM}	<0.0000050	<0.0000050	----	----	
Calcium, dissolved	7440-70-2	E421/VA	0.050	mg/L	22.6	22.9	<0.050	----	----	
Cesium, dissolved	7440-46-2	E421/VA	0.000010	mg/L	0.000044	0.000045	<0.000010	----	----	
Chromium, dissolved	7440-47-3	E421/VA	0.00050	mg/L	<0.00050	<0.00050	<0.00050	----	----	
Cobalt, dissolved	7440-48-4	E421/VA	0.00010	mg/L	0.00010	0.00011	<0.00010	----	----	
Copper, dissolved	7440-50-8	E421/VA	0.00020	mg/L	<0.00020	<0.00020	<0.00020	----	----	
Iron, dissolved	7439-89-6	E421/VA	0.010	mg/L	<0.010	<0.010	<0.010	----	----	
Lead, dissolved	7439-92-1	E421/VA	0.000050	mg/L	<0.000050	<0.000050	<0.000050	----	----	
Lithium, dissolved	7439-93-2	E421/VA	0.0010	mg/L	0.0191	0.0194	<0.0010	----	----	
Magnesium, dissolved	7439-95-4	E421/VA	0.0050	mg/L	2.42	2.43	<0.0050	----	----	
Manganese, dissolved	7439-96-5	E421/VA	0.00010	mg/L	0.103	0.104	<0.00010	----	----	
Mercury, dissolved	7439-97-6	E509/VA	0.0000050	mg/L	<0.0000050	<0.0000050	<0.0000050	----	----	
Molybdenum, dissolved	7439-98-7	E421/VA	0.000050	mg/L	0.00882	0.00858	<0.000050	----	----	
Nickel, dissolved	7440-02-0	E421/VA	0.00050	mg/L	<0.00050	<0.00050	<0.00050	----	----	



Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	W LNG EOP	Duplicate	Field Blank	Trip Blank	----
Client sampling date / time					19-Jun-2024 13:45	19-Jun-2024 13:50	19-Jun-2024 14:15	19-Jun-2024 00:00	----	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4438-001	VA24B4438-002	VA24B4438-003	VA24B4438-004	-----	
					Result	Result	Result	Result	----	
Dissolved Metals										
Phosphorus, dissolved	7723-14-0	E421/VA	0.050	mg/L	<0.050	<0.050	<0.050	----	----	
Potassium, dissolved	7440-09-7	E421/VA	0.050	mg/L	9.94	10.2	<0.050	----	----	
Rubidium, dissolved	7440-17-7	E421/VA	0.00020	mg/L	0.0154	0.0159	<0.00020	----	----	
Selenium, dissolved	7782-49-2	E421/VA	0.000050	mg/L	0.000066	0.000066	<0.000050	----	----	
Silicon, dissolved	7440-21-3	E421/VA	0.050	mg/L	5.40	5.46	<0.050	----	----	
Silver, dissolved	7440-22-4	E421/VA	0.000010	mg/L	<0.000010	<0.000010	<0.000010	----	----	
Sodium, dissolved	7440-23-5	E421/VA	0.050	mg/L	27.8	28.1	<0.050	----	----	
Strontium, dissolved	7440-24-6	E421/VA	0.00020	mg/L	0.106	0.101	<0.00020	----	----	
Sulfur, dissolved	7704-34-9	E421/VA	0.50	mg/L	2.54	2.40	<0.50	----	----	
Tellurium, dissolved	13494-80-9	E421/VA	0.00020	mg/L	<0.00020	<0.00020	<0.00020	----	----	
Thallium, dissolved	7440-28-0	E421/VA	0.000010	mg/L	0.000060	0.000056	<0.000010	----	----	
Thorium, dissolved	7440-29-1	E421/VA	0.00010	mg/L	<0.00010	<0.00010	<0.00010	----	----	
Tin, dissolved	7440-31-5	E421/VA	0.00010	mg/L	<0.00010	<0.00010	<0.00010	----	----	
Titanium, dissolved	7440-32-6	E421/VA	0.00030	mg/L	<0.00030	<0.00030	<0.00030	----	----	
Tungsten, dissolved	7440-33-7	E421/VA	0.00010	mg/L	0.00024	0.00024	<0.00010	----	----	
Uranium, dissolved	7440-61-1	E421/VA	0.000010	mg/L	0.000416	0.000424	<0.000010	----	----	
Vanadium, dissolved	7440-62-2	E421/VA	0.00050	mg/L	0.00068	0.00068	<0.00050	----	----	
Zinc, dissolved	7440-66-6	E421/VA	0.0010	mg/L	<0.0010	<0.0010	<0.0010	----	----	
Zirconium, dissolved	7440-67-7	E421/VA	0.00020	mg/L	<0.00020	<0.00020	<0.00020	----	----	
Dissolved mercury filtration location	----	EP509/VA	-	-	Field	Field	Field	----	----	
Dissolved metals filtration location	----	EP421/VA	-	-	Field	Field	Field	----	----	
Speciated Metals										
Chromium, hexavalent [Cr VI], total	18540-29-9	E532/VA	0.00050	mg/L	<0.00050	<0.00050	<0.00050	----	----	
Chromium, trivalent [Cr III], total	16065-83-1	EC535/VA	0.00050	mg/L	<0.00050	<0.00050	<0.00050	----	----	
Aggregate Organics										
Phenols, total (4AAP)	----	E562/EO	0.0010	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	----	
Volatile Organic Compounds										
Chlorobenzene	108-90-7	E611C/VA	0.50	µg/L	<0.50	<0.50	<0.50	<0.50	----	
Chloromethane	74-87-3	E611C/VA	5.0	µg/L	<5.0	<5.0	<5.0	<5.0	----	
Dichlorobenzene, 1,2-	95-50-1	E611C/VA	0.50	µg/L	<0.50	<0.50	<0.50	<0.50	----	



Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	W LNG EOP	Duplicate	Field Blank	Trip Blank	----
Client sampling date / time					19-Jun-2024 13:45	19-Jun-2024 13:50	19-Jun-2024 14:15	19-Jun-2024 00:00	----	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4438-001	VA24B4438-002	VA24B4438-003	VA24B4438-004	-----	
					Result	Result	Result	Result	----	
Volatile Organic Compounds										
Dichlorobenzene, 1,3-	541-73-1	E611C/VA	0.50	µg/L	<0.50	<0.50	<0.50	<0.50	----	
Dichlorobenzene, 1,4-	106-46-7	E611C/VA	0.50	µg/L	<0.50	<0.50	<0.50	<0.50	----	
Dichloropropane, 1,2-	78-87-5	E611C/VA	0.50	µg/L	<0.50	<0.50	<0.50	<0.50	----	
Dichloropropylene, cis+trans-1,3-	542-75-6	E611C/VA	0.75	µg/L	<0.75	<0.75	<0.75	<0.75	----	
Dichloropropylene, cis-1,3-	10061-01-5	E611C/VA	0.50	µg/L	<0.50	<0.50	<0.50	<0.50	----	
Tetrachloroethane, 1,1,1,2-	630-20-6	E611C/VA	0.50	µg/L	<0.50	<0.50	<0.50	<0.50	----	
Tetrachloroethane, 1,1,2,2-	79-34-5	E611C/VA	0.20	µg/L	<0.20	<0.20	<0.20	<0.20	----	
Trichloroethane, 1,1,2-	79-00-5	E611C/VA	0.50	µg/L	<0.50	<0.50	<0.50	<0.50	----	
Trichlorofluoromethane	75-69-4	E611C/VA	0.50	µg/L	<0.50	<0.50	<0.50	<0.50	----	
Volatile Organic Compounds [Drycleaning]										
Carbon tetrachloride	56-23-5	E611C/VA	0.50	µg/L	<0.50	<0.50	<0.50	<0.50	----	
Chloroethane	75-00-3	E611C/VA	0.50	µg/L	<0.50	<0.50	<0.50	<0.50	----	
Dichloroethane, 1,1-	75-34-3	E611C/VA	0.50	µg/L	<0.50	<0.50	<0.50	<0.50	----	
Dichloroethane, 1,2-	107-06-2	E611C/VA	0.50	µg/L	<0.50	<0.50	<0.50	<0.50	----	
Dichloroethylene, 1,1-	75-35-4	E611C/VA	0.50	µg/L	<0.50	<0.50	<0.50	<0.50	----	
Dichloroethylene, cis-1,2-	156-59-2	E611C/VA	0.50	µg/L	<0.50	<0.50	<0.50	<0.50	----	
Dichloroethylene, trans-1,2-	156-60-5	E611C/VA	0.50	µg/L	<0.50	<0.50	<0.50	<0.50	----	
Dichloromethane	75-09-2	E611C/VA	1.0	µg/L	<1.4 ^{SFPR}	<1.0	<1.6 ^{SFPR}	<1.0	----	
Dichloropropylene, trans-1,3-	10061-02-6	E611C/VA	0.50	µg/L	<0.50	<0.50	<0.50	<0.50	----	
Tetrachloroethylene	127-18-4	E611C/VA	0.50	µg/L	<0.50	<0.50	<0.50	<0.50	----	
Trichloroethane, 1,1,1-	71-55-6	E611C/VA	0.50	µg/L	<0.50	<0.50	<0.50	<0.50	----	
Trichloroethylene	79-01-6	E611C/VA	0.50	µg/L	<0.50	<0.50	<0.50	<0.50	----	
Vinyl chloride	75-01-4	E611C/VA	0.40	µg/L	<0.40	<0.40	<0.40	<0.40	----	
Volatile Organic Compounds [Fuels]										
Benzene	71-43-2	E611C/VA	0.50	µg/L	<0.50	<0.50	<0.50	<0.50	----	
Ethylbenzene	100-41-4	E611C/VA	0.50	µg/L	<0.50	<0.50	<0.50	<0.50	----	
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611C/VA	0.50	µg/L	<0.50	<0.50	<0.50	<0.50	----	
Styrene	100-42-5	E611C/VA	0.50	µg/L	<0.50	<0.50	<0.50	<0.50	----	
Toluene	108-88-3	E611C/VA	0.40	µg/L	<0.40	<0.40	<0.40	<0.40	----	
Xylene, m+p-	179601-23-1	E611C/VA	0.40	µg/L	<0.40	<0.40	<0.40	<0.40	----	



Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	W LNG EOP	Duplicate	Field Blank	Trip Blank	----
Client sampling date / time					19-Jun-2024 13:45	19-Jun-2024 13:50	19-Jun-2024 14:15	19-Jun-2024 00:00	----	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4438-001	VA24B4438-002	VA24B4438-003	VA24B4438-004	-----	
					Result	Result	Result	Result	----	
Volatile Organic Compounds [Fuels]										
Xylene, o-	95-47-6	E611C/VA	0.30	µg/L	<0.30	<0.30	<0.30	<0.30	----	
Xylenes, total	1330-20-7	E611C/VA	0.50	µg/L	<0.50	<0.50	<0.50	<0.50	----	
Volatile Organic Compounds [THMs]										
Bromodichloromethane	75-27-4	E611C/VA	0.50	µg/L	<0.50	<0.50	<0.50	<0.50	----	
Bromoform	75-25-2	E611C/VA	0.50	µg/L	<0.50	<0.50	<0.50	<0.50	----	
Chloroform	67-66-3	E611C/VA	0.50	µg/L	<0.50	<0.50	<0.50	<0.50	----	
Dibromochloromethane	124-48-1	E611C/VA	0.50	µg/L	<0.50	<0.50	<0.50	<0.50	----	
Hydrocarbons										
EPH (C10-C19)	----	E601A/VA	250	µg/L	<250	<250	<250	<250	----	
EPH (C19-C32)	----	E601A/VA	250	µg/L	<250	<250	<250	<250	----	
VHw (C6-C10)	----	E581.VH+F1/ VA	100	µg/L	<100	<100	<100	<100	----	
HEPHw	----	EC600A/VA	250	µg/L	<250	<250	<250	<250	----	
LEPHw	----	EC600A/VA	250	µg/L	<250	<250	<250	<250	----	
VPHw	----	EC580A/VA	100	µg/L	<100	<100	<100	<100	----	
Hydrocarbons Surrogates										
Bromobenzotrifluoride, 2- (EPH surrogate)	392-83-6	E601A/VA	1.0	%	85.3	90.0	87.4	84.4	----	
Dichlorotoluene, 3,4-	95-75-0	E581.VH+F1/ VA	1.0	%	90.5	90.9	96.0	94.9	----	
Volatile Organic Compounds Surrogates										
Bromofluorobenzene, 4-	460-00-4	E611C/VA	1.0	%	86.2	85.8	86.1	88.1	----	
Difluorobenzene, 1,4-	540-36-3	E611C/VA	1.0	%	101	102	101	102	----	
Polycyclic Aromatic Hydrocarbons										
Acenaphthene	83-32-9	E641A/VA	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	----	
Acenaphthylene	208-96-8	E641A/VA	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	----	
Acridine	260-94-6	E641A/VA	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	----	
Anthracene	120-12-7	E641A/VA	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	----	
Benz(a)anthracene	56-55-3	E641A/VA	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	----	
Benzo(a)pyrene	50-32-8	E641A/VA	0.0050	µg/L	<0.0050	<0.0050	<0.0050	<0.0050	----	
Benzo(b+)fluoranthene	n/a	E641A/VA	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	----	



Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	W LNG EOP	Duplicate	Field Blank	Trip Blank	----
Client sampling date / time					19-Jun-2024 13:45	19-Jun-2024 13:50	19-Jun-2024 14:15	19-Jun-2024 00:00	----	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4438-001	VA24B4438-002	VA24B4438-003	VA24B4438-004	-----	
					Result	Result	Result	Result	----	
Polycyclic Aromatic Hydrocarbons										
Benzo(b+j+k)fluoranthene	n/a	E641A/VA	0.015	µg/L	<0.015	<0.015	<0.015	<0.015	----	
Benzo(g,h,i)perylene	191-24-2	E641A/VA	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	----	
Benzo(k)fluoranthene	207-08-9	E641A/VA	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	----	
Chrysene	218-01-9	E641A/VA	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	----	
Dibenz(a,h)anthracene	53-70-3	E641A/VA	0.0050	µg/L	<0.0050	<0.0050	<0.0050	<0.0050	----	
Fluoranthene	206-44-0	E641A/VA	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	----	
Fluorene	86-73-7	E641A/VA	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	----	
Indeno(1,2,3-c,d)pyrene	193-39-5	E641A/VA	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	----	
Methylnaphthalene, 1-	90-12-0	E641A/VA	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	----	
Methylnaphthalene, 2-	91-57-6	E641A/VA	0.010	µg/L	0.011	0.011	<0.010	<0.010	----	
Naphthalene	91-20-3	E641A/VA	0.050	µg/L	0.067	0.068	<0.050	<0.050	----	
Phenanthrene	85-01-8	E641A/VA	0.020	µg/L	<0.020	<0.020	<0.020	<0.020	----	
Pyrene	129-00-0	E641A/VA	0.010	µg/L	<0.010	<0.010	<0.010	<0.010	----	
Quinoline	91-22-5	E641A/VA	0.050	µg/L	<0.050	<0.050	<0.050	<0.050	----	
Polycyclic Aromatic Hydrocarbons Surrogates										
Chrysene-d12	1719-03-5	E641A/VA	0.1	%	97.9	99.6	94.4	100	----	
Naphthalene-d8	1146-65-2	E641A/VA	0.1	%	105	106	109	106	----	
Phenanthrene-d10	1517-22-2	E641A/VA	0.1	%	104	107	106	106	----	
Glycols										
Diethylene glycol	111-46-6	E680E/VA	5.0	mg/L	<5.0	<5.0	<5.0	<5.0	----	
Ethylene glycol	107-21-1	E680E/VA	5.0	mg/L	<5.0	<5.0	<5.0	<5.0	----	
Propylene glycol, 1,2-	57-55-6	E680E/VA	5.0	mg/L	<5.0	<5.0	<5.0	<5.0	----	
Triethylene glycol	112-27-6	E680E/VA	5.0	mg/L	<5.0	<5.0	<5.0	<5.0	----	
Glycols, total (EG+DEG+PG)	----	E680E/VA	10	mg/L	<10	<10	<10	<10	----	
Glycols Surrogates										
Propanediol, 1,3-	504-63-2	E680E/VA	1.0	%	96.7	109	104	107	----	

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

<p>Work Order : VA24B4438</p> <p>Client : Triton Environmental Consultants Ltd.</p> <p>Contact : [REDACTED]</p> <p>Address : [REDACTED]</p> <p>Telephone : [REDACTED]</p> <p>Project : 11964</p> <p>PO : 11964-Task 30-Phase3C-4C</p> <p>C-O-C number : ----</p> <p>Sampler : ----</p> <p>Site : Water Analysis</p> <p>Quote number : VA23-TRIT100-012_V2</p> <p>No. of samples received : 4</p> <p>No. of samples analysed : 4</p>	<p>Page : 1 of 22</p> <p>Laboratory : ALS Environmental - Vancouver</p> <p>Account Manager : [REDACTED]</p> <p>Address : [REDACTED]</p> <p>Telephone : [REDACTED]</p> <p>Date Samples Received : 19-Jun-2024 17:25</p> <p>Issue Date : 21-Jun-2024 13:04</p>
--	---

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)

- No Analysis Holding Time Outliers exist.

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 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	
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) Duplicate	E562	19-Jun-2024	21-Jun-2024	28 days	2 days	✔	21-Jun-2024	28 days	2 days	✔
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) Field Blank	E562	19-Jun-2024	21-Jun-2024	28 days	2 days	✔	21-Jun-2024	28 days	2 days	✔
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) Trip Blank	E562	19-Jun-2024	21-Jun-2024	28 days	2 days	✔	21-Jun-2024	28 days	2 days	✔
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) WLNG EOP	E562	19-Jun-2024	21-Jun-2024	28 days	2 days	✔	21-Jun-2024	28 days	2 days	✔
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) Duplicate	E298	19-Jun-2024	19-Jun-2024	28 days	0 days	✔	20-Jun-2024	28 days	1 days	✔
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) Field Blank	E298	19-Jun-2024	19-Jun-2024	28 days	0 days	✔	20-Jun-2024	28 days	1 days	✔
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) Trip Blank	E298	19-Jun-2024	19-Jun-2024	28 days	0 days	✔	20-Jun-2024	28 days	1 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		
Anions and Nutrients : Ammonia by Fluorescence											
Amber glass total (sulfuric acid) WLNG EOP	E298	19-Jun-2024	19-Jun-2024	28 days	0 days	✓	20-Jun-2024	28 days	1 days	✓	
Anions and Nutrients : Bromide in Water by IC (Low Level)											
HDPE Duplicate	E235.Br-L	19-Jun-2024	19-Jun-2024	28 days	0 days	✓	20-Jun-2024	28 days	0 days	✓	
Anions and Nutrients : Bromide in Water by IC (Low Level)											
HDPE Field Blank	E235.Br-L	19-Jun-2024	19-Jun-2024	28 days	0 days	✓	20-Jun-2024	28 days	0 days	✓	
Anions and Nutrients : Bromide in Water by IC (Low Level)											
HDPE Trip Blank	E235.Br-L	19-Jun-2024	19-Jun-2024	28 days	0 days	✓	20-Jun-2024	28 days	0 days	✓	
Anions and Nutrients : Bromide in Water by IC (Low Level)											
HDPE WLNG EOP	E235.Br-L	19-Jun-2024	19-Jun-2024	28 days	0 days	✓	20-Jun-2024	28 days	0 days	✓	
Anions and Nutrients : Chloride in Water by IC											
HDPE Duplicate	E235.Cl	19-Jun-2024	19-Jun-2024	28 days	0 days	✓	20-Jun-2024	28 days	0 days	✓	
Anions and Nutrients : Chloride in Water by IC											
HDPE Field Blank	E235.Cl	19-Jun-2024	19-Jun-2024	28 days	0 days	✓	20-Jun-2024	28 days	0 days	✓	
Anions and Nutrients : Chloride in Water by IC											
HDPE Trip Blank	E235.Cl	19-Jun-2024	19-Jun-2024	28 days	0 days	✓	20-Jun-2024	28 days	0 days	✓	
Anions and Nutrients : Chloride in Water by IC											
HDPE WLNG EOP	E235.Cl	19-Jun-2024	19-Jun-2024	28 days	0 days	✓	20-Jun-2024	28 days	0 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		
Anions and Nutrients : Fluoride in Water by IC											
HDPE Duplicate	E235.F	19-Jun-2024	19-Jun-2024	28 days	0 days	✓	20-Jun-2024	28 days	0 days	✓	
Anions and Nutrients : Fluoride in Water by IC											
HDPE Field Blank	E235.F	19-Jun-2024	19-Jun-2024	28 days	0 days	✓	20-Jun-2024	28 days	0 days	✓	
Anions and Nutrients : Fluoride in Water by IC											
HDPE Trip Blank	E235.F	19-Jun-2024	19-Jun-2024	28 days	0 days	✓	20-Jun-2024	28 days	0 days	✓	
Anions and Nutrients : Fluoride in Water by IC											
HDPE WLNG EOP	E235.F	19-Jun-2024	19-Jun-2024	28 days	0 days	✓	20-Jun-2024	28 days	0 days	✓	
Anions and Nutrients : Nitrate in Water by IC (Low Level)											
HDPE Duplicate	E235.NO3-L	19-Jun-2024	19-Jun-2024	3 days	0 days	✓	20-Jun-2024	3 days	0 days	✓	
Anions and Nutrients : Nitrate in Water by IC (Low Level)											
HDPE Field Blank	E235.NO3-L	19-Jun-2024	19-Jun-2024	3 days	0 days	✓	20-Jun-2024	3 days	0 days	✓	
Anions and Nutrients : Nitrate in Water by IC (Low Level)											
HDPE Trip Blank	E235.NO3-L	19-Jun-2024	19-Jun-2024	3 days	0 days	✓	20-Jun-2024	3 days	0 days	✓	
Anions and Nutrients : Nitrate in Water by IC (Low Level)											
HDPE WLNG EOP	E235.NO3-L	19-Jun-2024	19-Jun-2024	3 days	0 days	✓	20-Jun-2024	3 days	0 days	✓	
Anions and Nutrients : Nitrite in Water by IC (Low Level)											
HDPE Duplicate	E235.NO2-L	19-Jun-2024	19-Jun-2024	3 days	0 days	✓	20-Jun-2024	3 days	0 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	
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE Field Blank	E235.NO2-L	19-Jun-2024	19-Jun-2024	3 days	0 days	✓	20-Jun-2024	3 days	0 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE Trip Blank	E235.NO2-L	19-Jun-2024	19-Jun-2024	3 days	0 days	✓	20-Jun-2024	3 days	0 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE WLNG EOP	E235.NO2-L	19-Jun-2024	19-Jun-2024	3 days	0 days	✓	20-Jun-2024	3 days	0 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE Duplicate	E235.SO4	19-Jun-2024	19-Jun-2024	28 days	0 days	✓	20-Jun-2024	28 days	0 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE Field Blank	E235.SO4	19-Jun-2024	19-Jun-2024	28 days	0 days	✓	20-Jun-2024	28 days	0 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE Trip Blank	E235.SO4	19-Jun-2024	19-Jun-2024	28 days	0 days	✓	20-Jun-2024	28 days	0 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE WLNG EOP	E235.SO4	19-Jun-2024	19-Jun-2024	28 days	0 days	✓	20-Jun-2024	28 days	0 days	✓
Anions and Nutrients : Total Nitrogen by Colourimetry										
Amber glass total (sulfuric acid) Duplicate	E366	19-Jun-2024	19-Jun-2024	28 days	0 days	✓	20-Jun-2024	28 days	1 days	✓
Anions and Nutrients : Total Nitrogen by Colourimetry										
Amber glass total (sulfuric acid) Field Blank	E366	19-Jun-2024	19-Jun-2024	28 days	0 days	✓	20-Jun-2024	28 days	1 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	
Anions and Nutrients : Total Nitrogen by Colourimetry										
Amber glass total (sulfuric acid) Trip Blank	E366	19-Jun-2024	19-Jun-2024	28 days	0 days	✓	20-Jun-2024	28 days	1 days	✓
Anions and Nutrients : Total Nitrogen by Colourimetry										
Amber glass total (sulfuric acid) WLNG EOP	E366	19-Jun-2024	19-Jun-2024	28 days	0 days	✓	20-Jun-2024	28 days	1 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) Duplicate	E372-U	19-Jun-2024	19-Jun-2024	28 days	0 days	✓	20-Jun-2024	28 days	1 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) Field Blank	E372-U	19-Jun-2024	19-Jun-2024	28 days	0 days	✓	20-Jun-2024	28 days	1 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) Trip Blank	E372-U	19-Jun-2024	19-Jun-2024	28 days	0 days	✓	20-Jun-2024	28 days	1 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) WLNG EOP	E372-U	19-Jun-2024	19-Jun-2024	28 days	0 days	✓	20-Jun-2024	28 days	1 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial - dissolved (lab preserved) Duplicate	E509	19-Jun-2024	20-Jun-2024	28 days	1 days	✓	20-Jun-2024	28 days	1 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial - dissolved (lab preserved) Field Blank	E509	19-Jun-2024	20-Jun-2024	28 days	1 days	✓	20-Jun-2024	28 days	1 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial - dissolved (lab preserved) WLNG EOP	E509	19-Jun-2024	20-Jun-2024	28 days	1 days	✓	20-Jun-2024	28 days	1 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		
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS											
HDPE - dissolved (lab preserved) Duplicate	E421	19-Jun-2024	20-Jun-2024	180 days	1 days	✓	20-Jun-2024	180 days	1 days	✓	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS											
HDPE - dissolved (lab preserved) Field Blank	E421	19-Jun-2024	20-Jun-2024	180 days	1 days	✓	20-Jun-2024	180 days	1 days	✓	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS											
HDPE - dissolved (lab preserved) WLNG EOP	E421	19-Jun-2024	20-Jun-2024	180 days	1 days	✓	20-Jun-2024	180 days	1 days	✓	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,CIO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine											
Glass vial - total (lab preserved) Field Blank	EF001	19-Jun-2024	----	----	----		20-Jun-2024	----	1 days		
Field Tests : Field pH,EC,Salinity, TDS, Cl2,CIO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine											
Glass vial - total (lab preserved) WLNG EOP	EF001	19-Jun-2024	----	----	----		20-Jun-2024	----	1 days		
Glycols : Glycols (4 analytes) by GC-FID											
Glass vial (sodium bisulfate) Trip Blank	E680E	19-Jun-2024	20-Jun-2024	14 days	1 days	✓	20-Jun-2024	40 days	0 days	✓	
Glycols : Glycols (4 analytes) by GC-FID											
Glass vial Duplicate	E680E	19-Jun-2024	20-Jun-2024	7 days	1 days	✓	20-Jun-2024	40 days	0 days	✓	
Glycols : Glycols (4 analytes) by GC-FID											
Glass vial Field Blank	E680E	19-Jun-2024	20-Jun-2024	7 days	1 days	✓	20-Jun-2024	40 days	0 days	✓	
Glycols : Glycols (4 analytes) by GC-FID											
Glass vial WLNG EOP	E680E	19-Jun-2024	20-Jun-2024	7 days	1 days	✓	20-Jun-2024	40 days	0 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	
Hydrocarbons : BC PHCs - EPH by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate) Duplicate	E601A	19-Jun-2024	20-Jun-2024	14 days	1 days	✓	20-Jun-2024	40 days	0 days	✓
Hydrocarbons : BC PHCs - EPH by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate) Field Blank	E601A	19-Jun-2024	20-Jun-2024	14 days	1 days	✓	20-Jun-2024	40 days	0 days	✓
Hydrocarbons : BC PHCs - EPH by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate) Trip Blank	E601A	19-Jun-2024	20-Jun-2024	14 days	1 days	✓	20-Jun-2024	40 days	0 days	✓
Hydrocarbons : BC PHCs - EPH by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate) WLNG EOP	E601A	19-Jun-2024	20-Jun-2024	14 days	1 days	✓	20-Jun-2024	40 days	0 days	✓
Hydrocarbons : VH and F1 by Headspace GC-FID										
Glass vial (sodium bisulfate) Duplicate	E581.VH+F1	19-Jun-2024	20-Jun-2024	14 days	1 days	✓	20-Jun-2024	14 days	1 days	✓
Hydrocarbons : VH and F1 by Headspace GC-FID										
Glass vial (sodium bisulfate) Field Blank	E581.VH+F1	19-Jun-2024	20-Jun-2024	14 days	1 days	✓	20-Jun-2024	14 days	1 days	✓
Hydrocarbons : VH and F1 by Headspace GC-FID										
Glass vial (sodium bisulfate) Trip Blank	E581.VH+F1	19-Jun-2024	20-Jun-2024	14 days	1 days	✓	20-Jun-2024	14 days	1 days	✓
Hydrocarbons : VH and F1 by Headspace GC-FID										
Glass vial (sodium bisulfate) WLNG EOP	E581.VH+F1	19-Jun-2024	20-Jun-2024	14 days	1 days	✓	20-Jun-2024	14 days	1 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) Duplicate	E358-L	19-Jun-2024	19-Jun-2024	28 days	0 days	✓	19-Jun-2024	28 days	0 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		
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)											
Amber glass dissolved (sulfuric acid) Field Blank	E358-L	19-Jun-2024	19-Jun-2024	28 days	0 days	✓	19-Jun-2024	28 days	0 days	✓	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)											
Amber glass dissolved (sulfuric acid) WLNG EOP	E358-L	19-Jun-2024	19-Jun-2024	28 days	0 days	✓	19-Jun-2024	28 days	0 days	✓	
Physical Tests : Alkalinity Species by Titration											
HDPE Duplicate	E290	19-Jun-2024	19-Jun-2024	14 days	0 days	✓	20-Jun-2024	14 days	1 days	✓	
Physical Tests : Alkalinity Species by Titration											
HDPE Field Blank	E290	19-Jun-2024	19-Jun-2024	14 days	0 days	✓	20-Jun-2024	14 days	1 days	✓	
Physical Tests : Alkalinity Species by Titration											
HDPE Trip Blank	E290	19-Jun-2024	19-Jun-2024	14 days	0 days	✓	20-Jun-2024	14 days	1 days	✓	
Physical Tests : Alkalinity Species by Titration											
HDPE WLNG EOP	E290	19-Jun-2024	19-Jun-2024	14 days	0 days	✓	20-Jun-2024	14 days	1 days	✓	
Physical Tests : TDS by Gravimetry											
HDPE Duplicate	E162	19-Jun-2024	----	----	----		20-Jun-2024	7 days	0 days	✓	
Physical Tests : TDS by Gravimetry											
HDPE Field Blank	E162	19-Jun-2024	----	----	----		20-Jun-2024	7 days	0 days	✓	
Physical Tests : TDS by Gravimetry											
HDPE Trip Blank	E162	19-Jun-2024	----	----	----		20-Jun-2024	7 days	0 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 : TDS by Gravimetry										
HDPE WLNG EOP	E162	19-Jun-2024	----	----	----		20-Jun-2024	7 days	0 days	✔
Physical Tests : TSS by Gravimetry										
HDPE Duplicate	E160	19-Jun-2024	----	----	----		20-Jun-2024	7 days	0 days	✔
Physical Tests : TSS by Gravimetry										
HDPE Field Blank	E160	19-Jun-2024	----	----	----		20-Jun-2024	7 days	0 days	✔
Physical Tests : TSS by Gravimetry										
HDPE Trip Blank	E160	19-Jun-2024	----	----	----		20-Jun-2024	7 days	0 days	✔
Physical Tests : TSS by Gravimetry										
HDPE WLNG EOP	E160	19-Jun-2024	----	----	----		20-Jun-2024	7 days	0 days	✔
Polycyclic Aromatic Hydrocarbons : PAHs in Water by Hexane LVI GC-MS										
Amber glass/Teflon lined cap (sodium bisulfate) Duplicate	E641A	19-Jun-2024	20-Jun-2024	14 days	1 days	✔	20-Jun-2024	40 days	0 days	✔
Polycyclic Aromatic Hydrocarbons : PAHs in Water by Hexane LVI GC-MS										
Amber glass/Teflon lined cap (sodium bisulfate) Field Blank	E641A	19-Jun-2024	20-Jun-2024	14 days	1 days	✔	20-Jun-2024	40 days	0 days	✔
Polycyclic Aromatic Hydrocarbons : PAHs in Water by Hexane LVI GC-MS										
Amber glass/Teflon lined cap (sodium bisulfate) Trip Blank	E641A	19-Jun-2024	20-Jun-2024	14 days	1 days	✔	20-Jun-2024	40 days	0 days	✔
Polycyclic Aromatic Hydrocarbons : PAHs in Water by Hexane LVI GC-MS										
Amber glass/Teflon lined cap (sodium bisulfate) WLNG EOP	E641A	19-Jun-2024	20-Jun-2024	14 days	1 days	✔	20-Jun-2024	40 days	0 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	
Speciated Metals : Total Hexavalent Chromium (Cr VI) by IC										
UV-inhibited HDPE - total (sodium hydroxide) Duplicate	E532	19-Jun-2024	----	----	----		19-Jun-2024	28 days	0 days	✔
Speciated Metals : Total Hexavalent Chromium (Cr VI) by IC										
UV-inhibited HDPE - total (sodium hydroxide) Field Blank	E532	19-Jun-2024	----	----	----		19-Jun-2024	28 days	0 days	✔
Speciated Metals : Total Hexavalent Chromium (Cr VI) by IC										
UV-inhibited HDPE - total (sodium hydroxide) WLNG EOP	E532	19-Jun-2024	----	----	----		19-Jun-2024	28 days	0 days	✔
Total Metals : Total Mercury in Water by CVAAS										
Glass vial - total (lab preserved) Duplicate	E508	19-Jun-2024	20-Jun-2024	28 days	1 days	✔	20-Jun-2024	28 days	1 days	✔
Total Metals : Total Mercury in Water by CVAAS										
Glass vial - total (lab preserved) Field Blank	E508	19-Jun-2024	20-Jun-2024	28 days	1 days	✔	20-Jun-2024	28 days	1 days	✔
Total Metals : Total Mercury in Water by CVAAS										
Glass vial - total (lab preserved) Trip Blank	E508	19-Jun-2024	20-Jun-2024	28 days	1 days	✔	20-Jun-2024	28 days	1 days	✔
Total Metals : Total Mercury in Water by CVAAS										
Glass vial - total (lab preserved) WLNG EOP	E508	19-Jun-2024	20-Jun-2024	28 days	1 days	✔	20-Jun-2024	28 days	1 days	✔
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) Duplicate	E420	19-Jun-2024	20-Jun-2024	180 days	1 days	✔	20-Jun-2024	180 days	1 days	✔
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) Field Blank	E420	19-Jun-2024	20-Jun-2024	180 days	1 days	✔	20-Jun-2024	180 days	1 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		
Total Metals : Total Metals in Water by CRC ICPMS											
HDPE - total (lab preserved) Trip Blank	E420	19-Jun-2024	20-Jun-2024	180 days	1 days	✓	20-Jun-2024	180 days	1 days	✓	
Total Metals : Total Metals in Water by CRC ICPMS											
HDPE - total (lab preserved) WLNQ EOP	E420	19-Jun-2024	20-Jun-2024	180 days	1 days	✓	20-Jun-2024	180 days	1 days	✓	
Total Sulfides : Total Sulfide by Colourimetry (Automated Flow)											
HDPE total (zinc acetate+sodium hydroxide) Duplicate	E395	19-Jun-2024	----	----	----		20-Jun-2024	7 days	1 days	✓	
Total Sulfides : Total Sulfide by Colourimetry (Automated Flow)											
HDPE total (zinc acetate+sodium hydroxide) Field Blank	E395	19-Jun-2024	----	----	----		20-Jun-2024	7 days	1 days	✓	
Total Sulfides : Total Sulfide by Colourimetry (Automated Flow)											
HDPE total (zinc acetate+sodium hydroxide) Trip Blank	E395	19-Jun-2024	----	----	----		20-Jun-2024	7 days	1 days	✓	
Total Sulfides : Total Sulfide by Colourimetry (Automated Flow)											
HDPE total (zinc acetate+sodium hydroxide) WLNQ EOP	E395	19-Jun-2024	----	----	----		20-Jun-2024	7 days	1 days	✓	
Volatile Organic Compounds : VOCs (BC List) by Headspace GC-MS											
Glass vial (sodium bisulfate) Duplicate	E611C	19-Jun-2024	20-Jun-2024	14 days	1 days	✓	20-Jun-2024	14 days	1 days	✓	
Volatile Organic Compounds : VOCs (BC List) by Headspace GC-MS											
Glass vial (sodium bisulfate) Field Blank	E611C	19-Jun-2024	20-Jun-2024	14 days	1 days	✓	20-Jun-2024	14 days	1 days	✓	
Volatile Organic Compounds : VOCs (BC List) by Headspace GC-MS											
Glass vial (sodium bisulfate) Trip Blank	E611C	19-Jun-2024	20-Jun-2024	14 days	1 days	✓	20-Jun-2024	14 days	1 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	
Volatile Organic Compounds : VOCs (BC List) by Headspace GC-MS										
Glass vial (sodium bisulfate) WLNG EOP	E611C	19-Jun-2024	20-Jun-2024	14 days	1 days	✔	20-Jun-2024	14 days	1 days	✔

Legend & Qualifier Definitions

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 (%)		
			QC	Regular	Actual	Expected	Evaluation
Analytical Methods							
Laboratory Duplicates (DUP)							
Alkalinity Species by Titration	E290	1503280	1	4	25.0	5.0	✔
Ammonia by Fluorescence	E298	1503188	1	4	25.0	5.0	✔
Bromide in Water by IC (Low Level)	E235.Br-L	1503275	1	4	25.0	5.0	✔
Chloride in Water by IC	E235.Cl	1503274	1	4	25.0	5.0	✔
Dissolved Mercury in Water by CVAAS	E509	1505757	1	3	33.3	5.0	✔
Dissolved Metals in Water by CRC ICPMS	E421	1504401	1	3	33.3	5.0	✔
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1503185	1	3	33.3	5.0	✔
Fluoride in Water by IC	E235.F	1503273	1	4	25.0	5.0	✔
Glycols (4 analytes) by GC-FID	E680E	1504808	1	4	25.0	5.0	✔
Nitrate in Water by IC (Low Level)	E235.NO3-L	1503276	1	12	8.3	5.0	✔
Nitrite in Water by IC (Low Level)	E235.NO2-L	1503277	1	12	8.3	5.0	✔
Phenols (4AAP) in Water by Colorimetry	E562	1506833	1	9	11.1	5.0	✔
Sulfate in Water by IC	E235.SO4	1503278	1	4	25.0	5.0	✔
TDS by Gravimetry	E162	1503349	1	4	25.0	5.0	✔
Total Hexavalent Chromium (Cr VI) by IC	E532	1503264	1	3	33.3	5.0	✔
Total Mercury in Water by CVAAS	E508	1505756	1	8	12.5	5.0	✔
Total Metals in Water by CRC ICPMS	E420	1503371	1	4	25.0	5.0	✔
Total Nitrogen by Colourimetry	E366	1503186	1	4	25.0	5.0	✔
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1503187	1	4	25.0	5.0	✔
Total Sulfide by Colourimetry (Automated Flow)	E395	1503807	1	11	9.0	5.0	✔
TSS by Gravimetry	E160	1503368	1	4	25.0	5.0	✔
VH and F1 by Headspace GC-FID	E581.VH+F1	1503750	1	4	25.0	5.0	✔
VOCs (BC List) by Headspace GC-MS	E611C	1503751	1	4	25.0	5.0	✔
Laboratory Control Samples (LCS)							
Alkalinity Species by Titration	E290	1503280	1	4	25.0	5.0	✔
Ammonia by Fluorescence	E298	1503188	1	4	25.0	5.0	✔
BC PHCs - EPH by GC-FID	E601A	1503369	1	4	25.0	5.0	✔
Bromide in Water by IC (Low Level)	E235.Br-L	1503275	1	4	25.0	5.0	✔
Chloride in Water by IC	E235.Cl	1503274	1	4	25.0	5.0	✔
Dissolved Mercury in Water by CVAAS	E509	1505757	1	3	33.3	5.0	✔
Dissolved Metals in Water by CRC ICPMS	E421	1504401	1	3	33.3	5.0	✔
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1503185	1	3	33.3	5.0	✔
Fluoride in Water by IC	E235.F	1503273	1	4	25.0	5.0	✔
Glycols (4 analytes) by GC-FID	E680E	1504808	1	4	25.0	5.0	✔
Nitrate in Water by IC (Low Level)	E235.NO3-L	1503276	1	12	8.3	5.0	✔
Nitrite in Water by IC (Low Level)	E235.NO2-L	1503277	1	12	8.3	5.0	✔



Matrix: **Water**

Evaluation: * = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
<i>Analytical Methods</i>							
Laboratory Control Samples (LCS) - Continued							
PAHs in Water by Hexane LVI GC-MS	E641A	1503370	1	4	25.0	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	1506833	1	9	11.1	5.0	✓
Sulfate in Water by IC	E235.SO4	1503278	1	4	25.0	5.0	✓
TDS by Gravimetry	E162	1503349	1	4	25.0	5.0	✓
Total Hexavalent Chromium (Cr VI) by IC	E532	1503264	1	3	33.3	5.0	✓
Total Mercury in Water by CVAAS	E508	1505756	1	8	12.5	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1503371	1	4	25.0	5.0	✓
Total Nitrogen by Colourimetry	E366	1503186	1	4	25.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1503187	1	4	25.0	5.0	✓
Total Sulfide by Colourimetry (Automated Flow)	E395	1503807	1	11	9.0	5.0	✓
TSS by Gravimetry	E160	1503368	1	4	25.0	5.0	✓
VH and F1 by Headspace GC-FID	E581.VH+F1	1503750	1	4	25.0	5.0	✓
VOCs (BC List) by Headspace GC-MS	E611C	1503751	1	4	25.0	5.0	✓
Method Blanks (MB)							
Alkalinity Species by Titration	E290	1503280	1	4	25.0	5.0	✓
Ammonia by Fluorescence	E298	1503188	1	4	25.0	5.0	✓
BC PHCs - EPH by GC-FID	E601A	1503369	1	4	25.0	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	1503275	1	4	25.0	5.0	✓
Chloride in Water by IC	E235.Cl	1503274	1	4	25.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1505757	1	3	33.3	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1504401	1	3	33.3	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1503185	1	3	33.3	5.0	✓
Fluoride in Water by IC	E235.F	1503273	1	4	25.0	5.0	✓
Glycols (4 analytes) by GC-FID	E680E	1504808	1	4	25.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1503276	1	12	8.3	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1503277	1	12	8.3	5.0	✓
PAHs in Water by Hexane LVI GC-MS	E641A	1503370	1	4	25.0	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	1506833	1	9	11.1	5.0	✓
Sulfate in Water by IC	E235.SO4	1503278	1	4	25.0	5.0	✓
TDS by Gravimetry	E162	1503349	1	4	25.0	5.0	✓
Total Hexavalent Chromium (Cr VI) by IC	E532	1503264	1	3	33.3	5.0	✓
Total Mercury in Water by CVAAS	E508	1505756	1	8	12.5	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1503371	1	4	25.0	5.0	✓
Total Nitrogen by Colourimetry	E366	1503186	1	4	25.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1503187	1	4	25.0	5.0	✓
Total Sulfide by Colourimetry (Automated Flow)	E395	1503807	1	11	9.0	5.0	✓
TSS by Gravimetry	E160	1503368	1	4	25.0	5.0	✓
VH and F1 by Headspace GC-FID	E581.VH+F1	1503750	1	4	25.0	5.0	✓
VOCs (BC List) by Headspace GC-MS	E611C	1503751	1	4	25.0	5.0	✓



Matrix: **Water**

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

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
<i>Analytical Methods</i>							
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1503188	1	4	25.0	5.0	✔
Bromide in Water by IC (Low Level)	E235.Br-L	1503275	1	4	25.0	5.0	✔
Chloride in Water by IC	E235.Cl	1503274	1	4	25.0	5.0	✔
Dissolved Mercury in Water by CVAAS	E509	1505757	1	3	33.3	5.0	✔
Dissolved Metals in Water by CRC ICPMS	E421	1504401	1	3	33.3	5.0	✔
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1503185	1	3	33.3	5.0	✔
Fluoride in Water by IC	E235.F	1503273	1	4	25.0	5.0	✔
Nitrate in Water by IC (Low Level)	E235.NO3-L	1503276	1	12	8.3	5.0	✔
Nitrite in Water by IC (Low Level)	E235.NO2-L	1503277	1	12	8.3	5.0	✔
Phenols (4AAP) in Water by Colorimetry	E562	1506833	1	9	11.1	5.0	✔
Sulfate in Water by IC	E235.SO4	1503278	1	4	25.0	5.0	✔
Total Hexavalent Chromium (Cr VI) by IC	E532	1503264	1	3	33.3	5.0	✔
Total Mercury in Water by CVAAS	E508	1505756	1	8	12.5	5.0	✔
Total Metals in Water by CRC ICPMS	E420	1503371	1	4	25.0	5.0	✔
Total Nitrogen by Colourimetry	E366	1503186	1	4	25.0	5.0	✔
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1503187	1	4	25.0	5.0	✔
Total Sulfide by Colourimetry (Automated Flow)	E395	1503807	1	11	9.0	5.0	✔
VH and F1 by Headspace GC-FID	E581.VH+F1	1503750	1	4	25.0	5.0	✔
VOCs (BC List) by Headspace GC-MS	E611C	1503751	1	4	25.0	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
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.
Bromide in Water by IC (Low Level)	E235.Br-L 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 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 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 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 ALS Environmental - Vancouver	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 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 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.



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
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)
Dissolved Organic Carbon by Combustion (Low Level)	E358-L 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 ₂ . 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 Nitrogen by Colourimetry	E366 ALS Environmental - Vancouver	Water	Chinchilla Scientific Nitrate Method, 2011	Following digestion, total nitrogen is determined colourimetrically using a discrete analyzer utilizing the vanadium chloride reduction method. This method of analysis is approved under US EPA 40 CFR Part 136 (May 2021).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U 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 Sulfide by Colourimetry (Automated Flow)	E395 ALS Environmental - Vancouver	Water	APHA 4500 -S E-Auto-Colorimetry	Sulfide is determined using the gas dialysis automated methylene blue colourimetric method. Results expressed "as H ₂ S" if reported represent the maximum possible H ₂ S concentration based on the total sulfide concentration in the sample. The H ₂ S calculation converts Total Sulphide as (S ₂ ⁻) and reports it as Total Sulphide as (H ₂ S)
Total Metals in Water by CRC ICPMS	E420 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. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Metals in Water by CRC ICPMS	E421 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. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Mercury in Water by CVAAS	E508 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 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.



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Total Hexavalent Chromium (Cr VI) by IC	E532 ALS Environmental - Vancouver	Water	APHA 3500-Cr C (Ion Chromatography)	Hexavalent Chromium is measured by Ion chromatography-Post column reaction and UV detection. Results are based on an un-filtered, field-preserved sample.
Phenols (4AAP) in Water by Colorimetry	E562 ALS Environmental - Edmonton	Water	EPA 9066	This automated method is based on the distillation of phenol and subsequent reaction of the distillate with alkaline ferricyanide (K ₃ Fe(CN) ₆) and 4-amino-antipyrine (4-AAP) to form a red complex which is measured colorimetrically.
VH and F1 by Headspace GC-FID	E581.VH+F1 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. 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 ALS Environmental - Vancouver	Water	BC MOE Lab Manual	Sample extracts are analyzed by GC-FID for BC hydrocarbon fractions.
VOCs (BC List) by Headspace GC-MS	E611C 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. Total Xylenes is the sum of m,p-Xylene & o-Xylene. Total BTEX is the sum of Benzene, Toluene, Ethylbenzene, & Total Xylenes. Total BTEX+Styrene is the sum of Total BTEX & Styrene. Total Trihalomethanes [THMs] is the sum of Bromodichloromethane, Bromoform, Chloroform, & Dibromochloromethane.
PAHs in Water by Hexane LVI GC-MS	E641A ALS Environmental - Vancouver	Water	EPA 8270E (mod)	Polycyclic Aromatic Hydrocarbons (PAHs) are analyzed by large volume injection (LVI) GC-MS.
Glycols (4 analytes) by GC-FID	E680E ALS Environmental - Vancouver	Water	EPA 8015D (mod)	Derivatized glycols are analyzed by GC-FID.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Vancouver	Water	APHA 2340B	"Hardness (as CaCO ₃), dissolved" is calculated from the sum of dissolved 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.



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
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.
Un-ionized Total Hydrogen Sulfide (calculated)	EC395 ALS Environmental - Vancouver	Water	APHA 4500 -S H	Un-ionized sulfide is calculated using results from total sulfide analysis, pH, temperature, and ionic strength of the sample. Calculation of un-ionized sulfide using total sulfide concentrations may be biased high due to particulate forms of sulfide measured during total sulfide testing.
Total Trivalent Chromium (Cr III) by Calculation	EC535 ALS Environmental - Vancouver	Water	APHA 3030B/6020A/EPA 7196A (mod)	Chromium (III)-Total is calculated as the difference between the total chromium and the total hexavalent chromium (Cr(VI)) results. The Limit of Reporting for Chromium (III) varies as a function of the test results.
VPH: VH-BTEX-Styrene	EC580A ALS Environmental - Vancouver	Water	BC MOE Lab Manual (VPH in Water and Solids) (mod)	Volatile Petroleum Hydrocarbons (VPH) is calculated as follows: VPHw = Volatile Hydrocarbons (VH C6-C10) minus benzene, toluene, ethylbenzene, xylenes (BTEX) and styrene.
LEPH and HEPH: EPH-PAH	EC600A ALS Environmental - Vancouver	Water	BC MOE Lab Manual (LEPH and HEPH)	Light Extractable Petroleum Hydrocarbons (LEPH) and Heavy Extractable Petroleum Hydrocarbons (HEPH) are calculated as follows: LEPH = Extractable Petroleum Hydrocarbons (EPH10-19) minus Acenaphthene, Acridine, Anthracene, Fluorene, Naphthalene and Phenanthrene; HEPH = Extractable Petroleum Hydrocarbons (EPH19-32) minus Benz(a)anthracene, Benzo(a)pyrene, Fluoranthene, and Pyrene.
Field pH,EC,Salinity, TDS, Cl ₂ ,ClO ₂ ,ORP,DO, Turbidity,T,T-P,o-PO ₄ ,NH ₃ ,Chloramine	EF001 ALS Environmental - Vancouver	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl ₂ ,ClO ₂ ,ORP,DO, Turbidity,T,T-P,o-PO ₄ ,NH ₃ or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

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.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Vancouver	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Nitrogen in water	EP366 ALS Environmental - Vancouver	Water	APHA 4500-P J (mod)	Samples for total nitrogen analysis are digested using a heated persulfate digestion. Nitrogen compounds are converted to nitrate in this digestion.
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Vancouver	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.



<i>Preparation Methods</i>	<i>Method / Lab</i>	<i>Matrix</i>	<i>Method Reference</i>	<i>Method Descriptions</i>
Dissolved Metals Water Filtration	EP421 ALS Environmental - Vancouver	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO ₃ .
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Vancouver	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.
VOCs Preparation for Headspace Analysis	EP581 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 the GC/MS-FID system.
PHCs and PAHs Hexane Extraction	EP601 ALS Environmental - Vancouver	Water	EPA 3511 (mod)	Petroleum Hydrocarbons (PHCs) and Polycyclic Aromatic Hydrocarbons (PAHs) are extracted using a hexane liquid-liquid extraction.
Glycols Extraction and Derivatization (BC Only)	EP680E ALS Environmental - Vancouver	Water	EPA 8015D (mod)	Aqueous sample is derivatized and extracted with organic solvent.

QUALITY CONTROL REPORT

Work Order : **VA24B4438**
Client : Triton Environmental Consultants Ltd.
Contact : [Redacted]
Address : [Redacted]
Telephone : [Redacted]
Project : 11964
PO : 11964-Task 30-Phase3C-4C
C-O-C number : ----
Sampler : ----
Site : Water Analysis
Quote number : VA23-TRIT100-012_V2
No. of samples received : 4
No. of samples analysed : 4

Page : 1 of 23
Laboratory : ALS Environmental - Vancouver
Account Manager : [Redacted]
Address : [Redacted]
Telephone : [Redacted]
Date Samples Received : 19-Jun-2024 17:25
Date Analysis Commenced : 19-Jun-2024
Issue Date : 21-Jun-2024 13:04

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
[Redacted]	Laboratory Analyst	Edmonton Inorganics, Edmonton, Alberta Vancouver Metals, Burnaby, British Columbia
[Redacted]	Supervisor - Inorganic	Vancouver Inorganics, Burnaby, British Columbia
[Redacted]	Lab Analyst	Vancouver Metals, Burnaby, British Columbia
[Redacted]	Department Manager - Inorganics	Vancouver Inorganics, Burnaby, British Columbia
[Redacted]	Lab Assistant	Vancouver Inorganics, Burnaby, British Columbia
[Redacted]	Account Manager Assistant	Vancouver Administration, Burnaby, British Columbia
[Redacted]	Team Leader - Organics	Vancouver Organics, Burnaby, British Columbia
[Redacted]	Team Leader - Metals	Vancouver Metals, Burnaby, British Columbia
[Redacted]	Team Leader - Metals	Vancouver Organics, Burnaby, British Columbia
[Redacted]	Supervisor - Water Quality Instrumentation	Vancouver Inorganics, Burnaby, British Columbia

Page : 2 of 23
Work Order : VA24B4438
Client : Triton Environmental Consultants Ltd.
Project : 11964



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: 1503280)											
VA24B4438-003	Field Blank	Alkalinity, total (as CaCO3)	----	E290	2.0	mg/L	<2.0	<2.0	0	Diff <2x LOR	----
Physical Tests (QC Lot: 1503349)											
VA24B4438-001	WLNG EOP	Solids, total dissolved [TDS]	----	E162	20	mg/L	194	194	0.5	Diff <2x LOR	----
Physical Tests (QC Lot: 1503368)											
VA24B4438-001	WLNG EOP	Solids, total suspended [TSS]	----	E160	3.0	mg/L	<3.0	<3.0	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1503186)											
VA24B4438-001	WLNG EOP	Nitrogen, total	7727-37-9	E366	0.030	mg/L	1.39	1.40	0.502%	20%	----
Anions and Nutrients (QC Lot: 1503187)											
VA24B4438-001	WLNG EOP	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0182	0.0181	0.00008	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1503188)											
VA24B4438-001	WLNG EOP	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0177	0.0166	0.0011	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1503273)											
VA24B4438-001	WLNG EOP	Fluoride	16984-48-8	E235.F	0.020	mg/L	0.363	0.356	1.89%	20%	----
Anions and Nutrients (QC Lot: 1503274)											
VA24B4438-001	WLNG EOP	Chloride	16887-00-6	E235.Cl	0.50	mg/L	15.9	15.9	0.309%	20%	----
Anions and Nutrients (QC Lot: 1503275)											
VA24B4438-001	WLNG EOP	Bromide	24959-67-9	E235.Br-L	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1503276)											
VA24B4438-001	WLNG EOP	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: 1503277)											
VA24B4438-001	WLNG EOP	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: 1503278)											
VA24B4438-001	WLNG EOP	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	7.26	7.23	0.374%	20%	----
Organic / Inorganic Carbon (QC Lot: 1503185)											
VA24B4438-001	WLNG EOP	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	7.00	7.17	2.39%	20%	----
Total Sulfides (QC Lot: 1503807)											
CG2408134-001	Anonymous	Sulfide, total (as S)	18496-25-8	E395	0.0075	mg/L	0.115	0.114	0.990%	20%	----
Total Metals (QC Lot: 1503371)											
VA24B4438-001	WLNG EOP	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0091	0.0099	0.0008	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00094	0.00091	0.00002	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: 1503371) - continued											
VA24B4438-001	WLNQ EOP	Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00158	0.00159	0.779%	20%	---
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.00316	0.00312	1.29%	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	0.029	0.029	0.0003	Diff <2x LOR	---
		Cadmium, total	7440-43-9	E420	0.0000100	mg/L	<0.0000100	<0.0000100	0	Diff <2x LOR	---
		Calcium, total	7440-70-2	E420	0.050	mg/L	23.7	23.9	0.965%	20%	---
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000045	0.000043	0.000002	Diff <2x LOR	---
		Chromium, total	7440-47-3	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	---
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00011	0.00011	0.000001	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	0.018	0.020	0.001	Diff <2x LOR	---
		Lead, total	7439-92-1	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	---
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0196	0.0189	3.85%	20%	---
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	2.40	2.41	0.706%	20%	---
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.108	0.110	1.75%	20%	---
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.00857	0.00840	1.93%	20%	---
		Nickel, total	7440-02-0	E420	0.00050	mg/L	<0.00050	<0.00050	0	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	10.4	10.3	0.500%	20%	---
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.0166	0.0166	0.0587%	20%	---
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000054	<0.000050	0.000004	Diff <2x LOR	---
		Silicon, total	7440-21-3	E420	0.10	mg/L	5.32	5.40	1.48%	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	27.9	27.6	1.09%	20%	---
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.105	0.102	2.81%	20%	---
		Sulfur, total	7704-34-9	E420	0.50	mg/L	2.40	2.59	0.19	Diff <2x LOR	---
		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	0.000059	0.000056	0.000004	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	0.00025	0.00023	0.00001	Diff <2x LOR	---
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000450	0.000444	1.49%	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 (QC Lot: 1503371) - continued											
VA24B4438-001	WLNG EOP	Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00074	0.00071	0.00002	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Total Metals (QC Lot: 1505756)											
VA24B4438-001	WLNG EOP	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1504401)											
VA24B4438-001	WLNG EOP	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0028	0.0027	0.0001	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00090	0.00089	0.00001	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00148	0.00145	1.88%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.00277	0.00280	1.17%	20%	----
		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	0.028	0.028	0.0002	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000100	mg/L	<0.0000100	<0.0000100	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	22.6	22.3	1.27%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	0.000044	0.000045	0.0000009	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	0.000003	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	0.0191	0.0190	0.446%	20%	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	2.42	2.36	2.51%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.103	0.103	0.624%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.00882	0.00858	2.73%	20%	----
		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	9.94	9.85	0.953%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.0154	0.0156	0.958%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000066	<0.000050	0.000016	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	5.40	5.40	0.114%	20%	----
		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	27.8	27.7	0.222%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.106	0.102	3.95%	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
Dissolved Metals (QC Lot: 1504401) - continued											
VA24B4438-001	WLNG EOP	Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	2.54	2.45	0.09	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	0.000060	0.000056	0.000004	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	0.00024	0.00024	0.00000002	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000416	0.000406	2.34%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00068	0.00066	0.00001	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1505757)											
VA24B4438-001	WLNG EOP	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Speciated Metals (QC Lot: 1503264)											
VA24B4438-001	WLNG EOP	Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
Aggregate Organics (QC Lot: 1506833)											
CG2408427-001	Anonymous	Phenols, total (4AAP)	----	E562	0.0010	mg/L	0.0063	0.0061	0.0002	Diff <2x LOR	----
Volatile Organic Compounds (QC Lot: 1503751)											
VA24B4438-001	WLNG EOP	Benzene	71-43-2	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Bromodichloromethane	75-27-4	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Bromoform	75-25-2	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Carbon tetrachloride	56-23-5	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chlorobenzene	108-90-7	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chloroethane	75-00-3	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chloroform	67-66-3	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chloromethane	74-87-3	E611C	5.0	µg/L	<5.0	<5.0	0	Diff <2x LOR	----
		Dibromochloromethane	124-48-1	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorobenzene, 1,2-	95-50-1	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorobenzene, 1,3-	541-73-1	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorobenzene, 1,4-	106-46-7	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethane, 1,1-	75-34-3	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethane, 1,2-	107-06-2	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethylene, 1,1-	75-35-4	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethylene, cis-1,2-	156-59-2	E611C	0.50	µg/L	<0.50	<0.50	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
Volatile Organic Compounds (QC Lot: 1503751) - continued											
VA24B4438-001	WLNQ EOP	Dichloroethylene, trans-1,2-	156-60-5	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloromethane	75-09-2	E611C	1.4	µg/L	<1.4	<1.4	0	Diff <2x LOR	----
		Dichloropropane, 1,2-	78-87-5	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloropropylene, cis-1,3-	10061-01-5	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloropropylene, trans-1,3-	10061-02-6	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Ethylbenzene	100-41-4	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Styrene	100-42-5	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethane, 1,1,1,2-	630-20-6	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethane, 1,1,2,2-	79-34-5	E611C	0.20	µg/L	<0.20	<0.20	0	Diff <2x LOR	----
		Tetrachloroethylene	127-18-4	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Toluene	108-88-3	E611C	0.40	µg/L	<0.40	<0.40	0	Diff <2x LOR	----
		Trichloroethane, 1,1,1-	71-55-6	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichloroethane, 1,1,2-	79-00-5	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichloroethylene	79-01-6	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichlorofluoromethane	75-69-4	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Vinyl chloride	75-01-4	E611C	0.40	µg/L	<0.40	<0.40	0	Diff <2x LOR	----
		Xylene, m+p-	179601-23-1	E611C	0.40	µg/L	<0.40	<0.40	0	Diff <2x LOR	----
Xylene, o-	95-47-6	E611C	0.30	µg/L	<0.30	<0.30	0	Diff <2x LOR	----		
Hydrocarbons (QC Lot: 1503750)											
VA24B4438-001	WLNQ EOP	VHw (C6-C10)	----	E581.VH+F1	100	µg/L	<100	<100	0.0%	30%	----
Glycols (QC Lot: 1504808)											
VA24B4438-001	WLNQ EOP	Diethylene glycol	111-46-6	E680E	5.0	mg/L	<5.0	<5.0	0	Diff <2x LOR	----
		Ethylene glycol	107-21-1	E680E	5.0	mg/L	<5.0	<5.0	0	Diff <2x LOR	----
		Propylene glycol, 1,2-	57-55-6	E680E	5.0	mg/L	<5.0	<5.0	0	Diff <2x LOR	----
		Triethylene glycol	112-27-6	E680E	5.0	mg/L	<5.0	<5.0	0	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: 1503280)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1503349)						
Solids, total dissolved [TDS]	----	E162	10	mg/L	<10	----
Physical Tests (QCLot: 1503368)						
Solids, total suspended [TSS]	----	E160	3	mg/L	<3.0	----
Anions and Nutrients (QCLot: 1503186)						
Nitrogen, total	7727-37-9	E366	0.03	mg/L	<0.030	----
Anions and Nutrients (QCLot: 1503187)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1503188)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1503273)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 1503274)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 1503275)						
Bromide	24959-67-9	E235.Br-L	0.05	mg/L	<0.050	----
Anions and Nutrients (QCLot: 1503276)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1503277)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1503278)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Organic / Inorganic Carbon (QCLot: 1503185)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Sulfides (QCLot: 1503807)						
Sulfide, total (as S)	18496-25-8	E395	0.0015	mg/L	<0.0015	----
Total Metals (QCLot: 1503371)						
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	----



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1503371) - continued						
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	----
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	----



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1505756)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1504401)						
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	----
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	----



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1504401) - continued						
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	----
Dissolved Metals (QCLot: 1505757)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Speciated Metals (QCLot: 1503264)						
Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.0005	mg/L	<0.00050	----
Aggregate Organics (QCLot: 1506833)						
Phenols, total (4AAP)	----	E562	0.001	mg/L	<0.0010	----
Volatile Organic Compounds (QCLot: 1503751)						
Benzene	71-43-2	E611C	0.5	µg/L	<0.50	----
Bromodichloromethane	75-27-4	E611C	0.5	µg/L	<0.50	----
Bromoform	75-25-2	E611C	0.5	µg/L	<0.50	----
Carbon tetrachloride	56-23-5	E611C	0.5	µg/L	<0.50	----
Chlorobenzene	108-90-7	E611C	0.5	µg/L	<0.50	----
Chloroethane	75-00-3	E611C	0.5	µg/L	<0.50	----
Chloroform	67-66-3	E611C	0.5	µg/L	<0.50	----
Chloromethane	74-87-3	E611C	5	µg/L	<5.0	----
Dibromochloromethane	124-48-1	E611C	0.5	µg/L	<0.50	----
Dichlorobenzene, 1,2-	95-50-1	E611C	0.5	µg/L	<0.50	----
Dichlorobenzene, 1,3-	541-73-1	E611C	0.5	µg/L	<0.50	----
Dichlorobenzene, 1,4-	106-46-7	E611C	0.5	µg/L	<0.50	----
Dichloroethane, 1,1-	75-34-3	E611C	0.5	µg/L	<0.50	----
Dichloroethane, 1,2-	107-06-2	E611C	0.5	µg/L	<0.50	----
Dichloroethylene, 1,1-	75-35-4	E611C	0.5	µg/L	<0.50	----
Dichloroethylene, cis-1,2-	156-59-2	E611C	0.5	µg/L	<0.50	----
Dichloroethylene, trans-1,2-	156-60-5	E611C	0.5	µg/L	<0.50	----
Dichloromethane	75-09-2	E611C	1	µg/L	<1.0	----
Dichloropropane, 1,2-	78-87-5	E611C	0.5	µg/L	<0.50	----
Dichloropropylene, cis-1,3-	10061-01-5	E611C	0.5	µg/L	<0.50	----
Dichloropropylene, trans-1,3-	10061-02-6	E611C	0.5	µg/L	<0.50	----
Ethylbenzene	100-41-4	E611C	0.5	µg/L	<0.50	----



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Volatile Organic Compounds (QCLot: 1503751) - continued						
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611C	0.5	µg/L	<0.50	----
Styrene	100-42-5	E611C	0.5	µg/L	<0.50	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611C	0.5	µg/L	<0.50	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611C	0.2	µg/L	<0.20	----
Tetrachloroethylene	127-18-4	E611C	0.5	µg/L	<0.50	----
Toluene	108-88-3	E611C	0.4	µg/L	<0.40	----
Trichloroethane, 1,1,1-	71-55-6	E611C	0.5	µg/L	<0.50	----
Trichloroethane, 1,1,2-	79-00-5	E611C	0.5	µg/L	<0.50	----
Trichloroethylene	79-01-6	E611C	0.5	µg/L	<0.50	----
Trichlorofluoromethane	75-69-4	E611C	0.5	µg/L	<0.50	----
Vinyl chloride	75-01-4	E611C	0.4	µg/L	<0.40	----
Xylene, m+p-	179601-23-1	E611C	0.4	µg/L	<0.40	----
Xylene, o-	95-47-6	E611C	0.3	µg/L	<0.30	----
Hydrocarbons (QCLot: 1503369)						
EPH (C10-C19)	----	E601A	250	µg/L	<250	----
EPH (C19-C32)	----	E601A	250	µg/L	<250	----
Hydrocarbons (QCLot: 1503750)						
VHw (C6-C10)	----	E581.VH+F1	100	µg/L	<100	----
Polycyclic Aromatic Hydrocarbons (QCLot: 1503370)						
Acenaphthene	83-32-9	E641A	0.01	µg/L	<0.010	----
Acenaphthylene	208-96-8	E641A	0.01	µg/L	<0.010	----
Acridine	260-94-6	E641A	0.01	µg/L	<0.010	----
Anthracene	120-12-7	E641A	0.01	µg/L	<0.010	----
Benz(a)anthracene	56-55-3	E641A	0.01	µg/L	<0.010	----
Benzo(a)pyrene	50-32-8	E641A	0.005	µg/L	<0.0050	----
Benzo(b+j)fluoranthene	n/a	E641A	0.01	µg/L	<0.010	----
Benzo(g,h,i)perylene	191-24-2	E641A	0.01	µg/L	<0.010	----
Benzo(k)fluoranthene	207-08-9	E641A	0.01	µg/L	<0.010	----
Chrysene	218-01-9	E641A	0.01	µg/L	<0.010	----
Dibenz(a,h)anthracene	53-70-3	E641A	0.005	µg/L	<0.0050	----
Fluoranthene	206-44-0	E641A	0.01	µg/L	<0.010	----
Fluorene	86-73-7	E641A	0.01	µg/L	<0.010	----
Indeno(1,2,3-c,d)pyrene	193-39-5	E641A	0.01	µg/L	<0.010	----
Methylnaphthalene, 1-	90-12-0	E641A	0.01	µg/L	<0.010	----
Methylnaphthalene, 2-	91-57-6	E641A	0.01	µg/L	<0.010	----



Sub-Matrix: **Water**

<i>Analyte</i>	<i>CAS Number</i>	<i>Method</i>	<i>LOR</i>	<i>Unit</i>	<i>Result</i>	<i>Qualifier</i>
Polycyclic Aromatic Hydrocarbons (QCLot: 1503370) - continued						
Naphthalene	91-20-3	E641A	0.05	µg/L	<0.050	----
Phenanthrene	85-01-8	E641A	0.02	µg/L	<0.020	----
Pyrene	129-00-0	E641A	0.01	µg/L	<0.010	----
Quinoline	91-22-5	E641A	0.05	µg/L	<0.050	----
Glycols (QCLot: 1504808)						
Diethylene glycol	111-46-6	E680E	5	mg/L	<5.0	----
Ethylene glycol	107-21-1	E680E	5	mg/L	<5.0	----
Propylene glycol, 1,2-	57-55-6	E680E	5	mg/L	<5.0	----
Triethylene glycol	112-27-6	E680E	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: 1503280)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	500 mg/L	107	85.0	115	----
Physical Tests (QCLot: 1503349)									
Solids, total dissolved [TDS]	----	E162	10	mg/L	1000 mg/L	109	85.0	115	----
Physical Tests (QCLot: 1503368)									
Solids, total suspended [TSS]	----	E160	3	mg/L	150 mg/L	88.8	85.0	115	----
Anions and Nutrients (QCLot: 1503186)									
Nitrogen, total	7727-37-9	E366	0.03	mg/L	0.5 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 1503187)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.05 mg/L	97.2	80.0	120	----
Anions and Nutrients (QCLot: 1503188)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	100	85.0	115	----
Anions and Nutrients (QCLot: 1503273)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	98.7	90.0	110	----
Anions and Nutrients (QCLot: 1503274)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 1503275)									
Bromide	24959-67-9	E235.Br-L	0.05	mg/L	0.5 mg/L	107	85.0	115	----
Anions and Nutrients (QCLot: 1503276)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 1503277)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	99.5	90.0	110	----
Anions and Nutrients (QCLot: 1503278)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	104	90.0	110	----
Organic / Inorganic Carbon (QCLot: 1503185)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	114	80.0	120	----
Total Sulfides (QCLot: 1503807)									
Sulfide, total (as S)	18496-25-8	E395	0.0015	mg/L	0.08 mg/L	104	80.0	120	----
Total Metals (QCLot: 1503371)									



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: 1503371) - continued									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	99.6	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	104	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	96.7	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	97.1	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	98.0	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	100	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	99.3	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	98.6	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	98.9	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	99.0	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	102	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	96.0	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	97.9	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	99.2	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	99.5	80.0	120	----
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	99.1	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	105	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	104	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	107	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	104	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	103	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	92.4	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	101	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	92.0	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	98.0	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	94.9	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	89.5	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	99.8	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	96.4	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	94.8	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	94.4	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: 1503371) - continued									
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	102	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	96.4	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	97.1	80.0	120	----
Total Metals (QCLot: 1505756)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	105	80.0	120	----
Dissolved Metals (QCLot: 1504401)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	105	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	108	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	108	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	103	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	95.4	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	101	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	97.6	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	102	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	99.6	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	103	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	106	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	103	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	102	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	99.1	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	102	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	106	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	103	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	107	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	100	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	110	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	108	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	110	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	102	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	106	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	95.4	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	107	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	104	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	91.7	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
Dissolved Metals (QCLot: 1504401) - continued									
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	103	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	99.5	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	95.0	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	104	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	99.1	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	98.9	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	101	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	106	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	103	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	104	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	110	80.0	120	----
Speciated Metals (QCLot: 1503264)									
Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.0005	mg/L	0.25 mg/L	103	80.0	120	----
Aggregate Organics (QCLot: 1506833)									
Phenols, total (4AAP)	----	E562	0.001	mg/L	0.02 mg/L	101	85.0	115	----
Volatile Organic Compounds (QCLot: 1503751)									
Benzene	71-43-2	E611C	0.5	µg/L	100 µg/L	103	70.0	130	----
Bromodichloromethane	75-27-4	E611C	0.5	µg/L	100 µg/L	96.8	70.0	130	----
Bromoform	75-25-2	E611C	0.5	µg/L	100 µg/L	84.4	70.0	130	----
Carbon tetrachloride	56-23-5	E611C	0.5	µg/L	100 µg/L	114	70.0	130	----
Chlorobenzene	108-90-7	E611C	0.5	µg/L	100 µg/L	99.7	70.0	130	----
Chloroethane	75-00-3	E611C	0.5	µg/L	100 µg/L	112	60.0	140	----
Chloroform	67-66-3	E611C	0.5	µg/L	100 µg/L	104	70.0	130	----
Chloromethane	74-87-3	E611C	5	µg/L	100 µg/L	115	60.0	140	----
Dibromochloromethane	124-48-1	E611C	0.5	µg/L	100 µg/L	95.0	70.0	130	----
Dichlorobenzene, 1,2-	95-50-1	E611C	0.5	µg/L	100 µg/L	98.3	70.0	130	----
Dichlorobenzene, 1,3-	541-73-1	E611C	0.5	µg/L	100 µg/L	104	70.0	130	----
Dichlorobenzene, 1,4-	106-46-7	E611C	0.5	µg/L	100 µg/L	105	70.0	130	----
Dichloroethane, 1,1-	75-34-3	E611C	0.5	µg/L	100 µg/L	101	70.0	130	----
Dichloroethane, 1,2-	107-06-2	E611C	0.5	µg/L	100 µg/L	91.1	70.0	130	----
Dichloroethylene, 1,1-	75-35-4	E611C	0.5	µg/L	100 µg/L	101	70.0	130	----
Dichloroethylene, cis-1,2-	156-59-2	E611C	0.5	µg/L	100 µg/L	96.0	70.0	130	----
Dichloroethylene, trans-1,2-	156-60-5	E611C	0.5	µg/L	100 µg/L	100	70.0	130	----



Sub-Matrix: **Water**

Laboratory Control Sample (LCS) Report

Analyte	CAS Number	Method	LOR	Unit	Spike		Recovery (%)		Recovery Limits (%)		Qualifier
					Target Concentration	LCS	Low	High			
Volatile Organic Compounds (QCLot: 1503751) - continued											
Dichloromethane	75-09-2	E611C	1	µg/L	100 µg/L	98.2	70.0	130	---		
Dichloropropane, 1,2-	78-87-5	E611C	0.5	µg/L	100 µg/L	98.0	70.0	130	---		
Dichloropropylene, cis-1,3-	10061-01-5	E611C	0.5	µg/L	100 µg/L	96.7	70.0	130	---		
Dichloropropylene, trans-1,3-	10061-02-6	E611C	0.5	µg/L	100 µg/L	89.1	70.0	130	---		
Ethylbenzene	100-41-4	E611C	0.5	µg/L	100 µg/L	102	70.0	130	---		
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611C	0.5	µg/L	100 µg/L	102	70.0	130	---		
Styrene	100-42-5	E611C	0.5	µg/L	100 µg/L	101	70.0	130	---		
Tetrachloroethane, 1,1,1,2-	630-20-6	E611C	0.5	µg/L	100 µg/L	100	70.0	130	---		
Tetrachloroethane, 1,1,2,2-	79-34-5	E611C	0.2	µg/L	100 µg/L	84.9	70.0	130	---		
Tetrachloroethylene	127-18-4	E611C	0.5	µg/L	100 µg/L	103	70.0	130	---		
Toluene	108-88-3	E611C	0.4	µg/L	100 µg/L	104	70.0	130	---		
Trichloroethane, 1,1,1-	71-55-6	E611C	0.5	µg/L	100 µg/L	113	70.0	130	---		
Trichloroethane, 1,1,2-	79-00-5	E611C	0.5	µg/L	100 µg/L	88.2	70.0	130	---		
Trichloroethylene	79-01-6	E611C	0.5	µg/L	100 µg/L	106	70.0	130	---		
Trichlorofluoromethane	75-69-4	E611C	0.5	µg/L	100 µg/L	129	60.0	140	---		
Vinyl chloride	75-01-4	E611C	0.4	µg/L	100 µg/L	118	60.0	140	---		
Xylene, m+p-	179601-23-1	E611C	0.4	µg/L	200 µg/L	106	70.0	130	---		
Xylene, o-	95-47-6	E611C	0.3	µg/L	100 µg/L	98.2	70.0	130	---		
Hydrocarbons (QCLot: 1503369)											
EPH (C10-C19)	---	E601A	250	µg/L	6490 µg/L	111	70.0	130	---		
EPH (C19-C32)	---	E601A	250	µg/L	3360 µg/L	110	70.0	130	---		
Hydrocarbons (QCLot: 1503750)											
VHw (C6-C10)	---	E581.VH+F1	100	µg/L	6310 µg/L	82.4	70.0	130	---		
Polycyclic Aromatic Hydrocarbons (QCLot: 1503370)											
Acenaphthene	83-32-9	E641A	0.01	µg/L	0.5 µg/L	117	60.0	130	---		
Acenaphthylene	208-96-8	E641A	0.01	µg/L	0.5 µg/L	116	60.0	130	---		
Acridine	260-94-6	E641A	0.01	µg/L	0.5 µg/L	101	60.0	130	---		
Anthracene	120-12-7	E641A	0.01	µg/L	0.5 µg/L	110	60.0	130	---		
Benz(a)anthracene	56-55-3	E641A	0.01	µg/L	0.5 µg/L	93.5	60.0	130	---		
Benzo(a)pyrene	50-32-8	E641A	0.005	µg/L	0.5 µg/L	102	60.0	130	---		
Benzo(b+j)fluoranthene	n/a	E641A	0.01	µg/L	0.5 µg/L	105	60.0	130	---		
Benzo(g,h,i)perylene	191-24-2	E641A	0.01	µg/L	0.5 µg/L	126	60.0	130	---		
Benzo(k)fluoranthene	207-08-9	E641A	0.01	µg/L	0.5 µg/L	102	60.0	130	---		
Chrysene	218-01-9	E641A	0.01	µg/L	0.5 µg/L	106	60.0	130	---		



Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Polycyclic Aromatic Hydrocarbons (QCLot: 1503370) - continued									
Dibenz(a,h)anthracene	53-70-3	E641A	0.005	µg/L	0.5 µg/L	108	60.0	130	----
Fluoranthene	206-44-0	E641A	0.01	µg/L	0.5 µg/L	110	60.0	130	----
Fluorene	86-73-7	E641A	0.01	µg/L	0.5 µg/L	105	60.0	130	----
Indeno(1,2,3-c,d)pyrene	193-39-5	E641A	0.01	µg/L	0.5 µg/L	123	60.0	130	----
Methylnaphthalene, 1-	90-12-0	E641A	0.01	µg/L	0.5 µg/L	102	60.0	130	----
Methylnaphthalene, 2-	91-57-6	E641A	0.01	µg/L	0.5 µg/L	112	60.0	130	----
Naphthalene	91-20-3	E641A	0.05	µg/L	0.5 µg/L	106	50.0	130	----
Phenanthrene	85-01-8	E641A	0.02	µg/L	0.5 µg/L	109	60.0	130	----
Pyrene	129-00-0	E641A	0.01	µg/L	0.5 µg/L	108	60.0	130	----
Quinoline	91-22-5	E641A	0.05	µg/L	0.5 µg/L	103	60.0	130	----
Glycols (QCLot: 1504808)									
Diethylene glycol	111-46-6	E680E	5	mg/L	25 mg/L	103	70.0	130	----
Ethylene glycol	107-21-1	E680E	5	mg/L	25 mg/L	104	70.0	130	----
Propylene glycol, 1,2-	57-55-6	E680E	5	mg/L	25 mg/L	101	70.0	130	----
Triethylene glycol	112-27-6	E680E	5	mg/L	25 mg/L	104	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 (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1503186)										
VA24B4438-002	Duplicate	Nitrogen, total	7727-37-9	E366	ND mg/L	----	ND	70.0	130	----
Anions and Nutrients (QCLot: 1503187)										
VA24B4438-002	Duplicate	Phosphorus, total	7723-14-0	E372-U	0.0482 mg/L	0.05 mg/L	96.4	70.0	130	----
Anions and Nutrients (QCLot: 1503188)										
VA24B4438-002	Duplicate	Ammonia, total (as N)	7664-41-7	E298	0.0947 mg/L	0.1 mg/L	94.7	75.0	125	----
Anions and Nutrients (QCLot: 1503273)										
VA24B4438-002	Duplicate	Fluoride	16984-48-8	E235.F	0.863 mg/L	1 mg/L	86.3	75.0	125	----
Anions and Nutrients (QCLot: 1503274)										
VA24B4438-002	Duplicate	Chloride	16887-00-6	E235.Cl	105 mg/L	100 mg/L	105	75.0	125	----
Anions and Nutrients (QCLot: 1503275)										
VA24B4438-002	Duplicate	Bromide	24959-67-9	E235.Br-L	0.570 mg/L	0.5 mg/L	114	75.0	125	----
Anions and Nutrients (QCLot: 1503276)										
VA24B4438-002	Duplicate	Nitrate (as N)	14797-55-8	E235.NO3-L	2.65 mg/L	2.5 mg/L	106	75.0	125	----
Anions and Nutrients (QCLot: 1503277)										
VA24B4438-002	Duplicate	Nitrite (as N)	14797-65-0	E235.NO2-L	0.510 mg/L	0.5 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1503278)										
VA24B4438-002	Duplicate	Sulfate (as SO4)	14808-79-8	E235.SO4	107 mg/L	100 mg/L	107	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1503185)										
VA24B4438-002	Duplicate	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Total Sulfides (QCLot: 1503807)										
GP2401092-001	Anonymous	Sulfide, total (as S)	18496-25-8	E395	103 mg/L	100 mg/L	103	75.0	125	----
Total Metals (QCLot: 1503371)										
VA24B4438-002	Duplicate	Aluminum, total	7429-90-5	E420	0.192 mg/L	0.2 mg/L	96.2	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0190 mg/L	0.02 mg/L	95.3	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0201 mg/L	0.02 mg/L	100	70.0	130	----
		Barium, total	7440-39-3	E420	0.0191 mg/L	0.02 mg/L	95.3	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0378 mg/L	0.04 mg/L	94.5	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00923 mg/L	0.01 mg/L	92.3	70.0	130	----
		Boron, total	7440-42-8	E420	0.098 mg/L	0.1 mg/L	97.8	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00389 mg/L	0.004 mg/L	97.2	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.00960 mg/L	0.01 mg/L	96.0	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0379 mg/L	0.04 mg/L	94.9	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: 1503371) - continued										
VA24B4438-002	Duplicate	Cobalt, total	7440-48-4	E420	0.0193 mg/L	0.02 mg/L	96.5	70.0	130	----
		Copper, total	7440-50-8	E420	0.0195 mg/L	0.02 mg/L	97.4	70.0	130	----
		Iron, total	7439-89-6	E420	1.91 mg/L	2 mg/L	95.5	70.0	130	----
		Lead, total	7439-92-1	E420	0.0181 mg/L	0.02 mg/L	90.5	70.0	130	----
		Lithium, total	7439-93-2	E420	0.0926 mg/L	0.1 mg/L	92.6	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	0.0194 mg/L	0.02 mg/L	97.2	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0386 mg/L	0.04 mg/L	96.5	70.0	130	----
		Phosphorus, total	7723-14-0	E420	10.5 mg/L	10 mg/L	105	70.0	130	----
		Potassium, total	7440-09-7	E420	ND mg/L	----	ND	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0409 mg/L	0.04 mg/L	102	70.0	130	----
		Silicon, total	7440-21-3	E420	9.25 mg/L	10 mg/L	92.5	70.0	130	----
		Silver, total	7440-22-4	E420	0.00377 mg/L	0.004 mg/L	94.2	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	21.2 mg/L	20 mg/L	106	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0390 mg/L	0.04 mg/L	97.6	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00348 mg/L	0.004 mg/L	86.9	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0150 mg/L	0.02 mg/L	75.0	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	0.0387 mg/L	0.04 mg/L	96.7	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0188 mg/L	0.02 mg/L	93.8	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00381 mg/L	0.004 mg/L	95.3	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.100 mg/L	0.1 mg/L	100	70.0	130	----
		Zinc, total	7440-66-6	E420	0.376 mg/L	0.4 mg/L	94.0	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0398 mg/L	0.04 mg/L	99.5	70.0	130	----
Total Metals (QCLot: 1505756)										
VA24B4438-002	Duplicate	Mercury, total	7439-97-6	E508	0.000105 mg/L	0 mg/L	105	70.0	130	----
Dissolved Metals (QCLot: 1504401)										
VA24B4438-002	Duplicate	Aluminum, dissolved	7429-90-5	E421	0.197 mg/L	0.2 mg/L	98.4	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0189 mg/L	0.02 mg/L	94.6	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0194 mg/L	0.02 mg/L	96.8	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0371 mg/L	0.04 mg/L	92.7	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00900 mg/L	0.01 mg/L	90.0	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.096 mg/L	0.1 mg/L	96.1	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00389 mg/L	0.004 mg/L	97.2	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.00954 mg/L	0.01 mg/L	95.4	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0384 mg/L	0.04 mg/L	96.1	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0189 mg/L	0.02 mg/L	94.7	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
Dissolved Metals (QCLot: 1504401) - continued										
VA24B4438-002	Duplicate	Copper, dissolved	7440-50-8	E421	0.0189 mg/L	0.02 mg/L	94.5	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.86 mg/L	2 mg/L	93.1	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0182 mg/L	0.02 mg/L	91.0	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0924 mg/L	0.1 mg/L	92.4	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	----	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0196 mg/L	0.02 mg/L	98.0	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0369 mg/L	0.04 mg/L	92.3	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.8 mg/L	10 mg/L	108	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	ND mg/L	----	ND	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0200 mg/L	0.02 mg/L	99.9	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0404 mg/L	0.04 mg/L	101	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.28 mg/L	10 mg/L	92.8	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00318 mg/L	0.004 mg/L	79.4	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	20.1 mg/L	20 mg/L	101	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0387 mg/L	0.04 mg/L	96.7	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00356 mg/L	0.004 mg/L	89.0	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0169 mg/L	0.02 mg/L	84.6	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0191 mg/L	0.02 mg/L	95.4	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0392 mg/L	0.04 mg/L	97.9	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0188 mg/L	0.02 mg/L	93.8	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00372 mg/L	0.004 mg/L	93.0	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.0987 mg/L	0.1 mg/L	98.7	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.390 mg/L	0.4 mg/L	97.6	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0415 mg/L	0.04 mg/L	104	70.0	130	----
Dissolved Metals (QCLot: 1505757)										
VA24B4438-002	Duplicate	Mercury, dissolved	7439-97-6	E509	0.000104 mg/L	0 mg/L	104	70.0	130	----
Speciated Metals (QCLot: 1503264)										
VA24B4438-002	Duplicate	Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.250 mg/L	0.25 mg/L	100	70.0	130	----
Aggregate Organics (QCLot: 1506833)										
CG2408427-002	Anonymous	Phenols, total (4AAP)	----	E562	0.0161 mg/L	0.02 mg/L	80.3	75.0	125	----
Volatile Organic Compounds (QCLot: 1503751)										
VA24B4438-002	Duplicate	Benzene	71-43-2	E611C	104 µg/L	100 µg/L	104	60.0	140	----
		Bromodichloromethane	75-27-4	E611C	99.1 µg/L	100 µg/L	99.1	60.0	140	----
		Bromoform	75-25-2	E611C	85.6 µg/L	100 µg/L	85.6	60.0	140	----
		Carbon tetrachloride	56-23-5	E611C	111 µg/L	100 µg/L	111	60.0	140	----
		Chlorobenzene	108-90-7	E611C	100 µg/L	100 µg/L	100	60.0	140	----
		Chloroethane	75-00-3	E611C	112 µg/L	100 µg/L	112	50.0	150	----
		Chloroform	67-66-3	E611C	105 µg/L	100 µg/L	105	60.0	140	----
		Chloromethane	74-87-3	E611C	116 µg/L	100 µg/L	116	50.0	150	----



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
Volatile Organic Compounds (QCLot: 1503751) - continued										
VA24B4438-002	Duplicate	Dibromochloromethane	124-48-1	E611C	97.9 µg/L	100 µg/L	97.9	60.0	140	----
		Dichlorobenzene, 1,2-	95-50-1	E611C	97.1 µg/L	100 µg/L	97.1	60.0	140	----
		Dichlorobenzene, 1,3-	541-73-1	E611C	102 µg/L	100 µg/L	102	60.0	140	----
		Dichlorobenzene, 1,4-	106-46-7	E611C	103 µg/L	100 µg/L	103	60.0	140	----
		Dichloroethane, 1,1-	75-34-3	E611C	102 µg/L	100 µg/L	102	60.0	140	----
		Dichloroethane, 1,2-	107-06-2	E611C	96.3 µg/L	100 µg/L	96.3	60.0	140	----
		Dichloroethylene, 1,1-	75-35-4	E611C	99.6 µg/L	100 µg/L	99.6	60.0	140	----
		Dichloroethylene, cis-1,2-	156-59-2	E611C	97.5 µg/L	100 µg/L	97.5	60.0	140	----
		Dichloroethylene, trans-1,2-	156-60-5	E611C	99.3 µg/L	100 µg/L	99.3	60.0	140	----
		Dichloromethane	75-09-2	E611C	101 µg/L	100 µg/L	101	60.0	140	----
		Dichloropropane, 1,2-	78-87-5	E611C	100 µg/L	100 µg/L	100	60.0	140	----
		Dichloropropylene, cis-1,3-	10061-01-5	E611C	100 µg/L	100 µg/L	100	60.0	140	----
		Dichloropropylene, trans-1,3-	10061-02-6	E611C	94.0 µg/L	100 µg/L	94.0	60.0	140	----
		Ethylbenzene	100-41-4	E611C	99.9 µg/L	100 µg/L	99.9	60.0	140	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611C	104 µg/L	100 µg/L	104	60.0	140	----
		Styrene	100-42-5	E611C	100 µg/L	100 µg/L	100	60.0	140	----
		Tetrachloroethane, 1,1,1,2-	630-20-6	E611C	101 µg/L	100 µg/L	101	60.0	140	----
		Tetrachloroethane, 1,1,2,2-	79-34-5	E611C	87.3 µg/L	100 µg/L	87.3	60.0	140	----
		Tetrachloroethylene	127-18-4	E611C	101 µg/L	100 µg/L	101	60.0	140	----
		Toluene	108-88-3	E611C	103 µg/L	100 µg/L	103	60.0	140	----
		Trichloroethane, 1,1,1-	71-55-6	E611C	110 µg/L	100 µg/L	110	60.0	140	----
		Trichloroethane, 1,1,2-	79-00-5	E611C	91.4 µg/L	100 µg/L	91.4	60.0	140	----
		Trichloroethylene	79-01-6	E611C	105 µg/L	100 µg/L	105	60.0	140	----
		Trichlorofluoromethane	75-69-4	E611C	124 µg/L	100 µg/L	124	50.0	150	----
		Vinyl chloride	75-01-4	E611C	116 µg/L	100 µg/L	116	50.0	150	----
		Xylene, m+p-	179601-23-1	E611C	208 µg/L	200 µg/L	104	60.0	140	----
		Xylene, o-	95-47-6	E611C	96.8 µg/L	100 µg/L	96.8	60.0	140	----
Hydrocarbons (QCLot: 1503750)										
VA24B4438-003	Field Blank	VHw (C6-C10)	----	E581.VH+F1	5270 µg/L	6310 µg/L	83.5	60.0	140	----



Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here
(lab use only)

COC Number: 17 -

Page 1 of 1

www.alsglobal.com

Report To Contact and company name below will appear on the final report		Report Format / Distribution		Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)					
Company:	Triton Environmental	Select Report Format:	<input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input type="checkbox"/> EDD (DIGITAL)	Regular [R] <input type="checkbox"/> Standard TAT if received by 3 pm - business days - no surcharges apply					
Contact:		Quality Control (QC) Report with Report	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	PRIORITY (Business Days)	4 day [P4-20%]	<input type="checkbox"/>	EMERGENCY		
Phone:		<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked			3 day [P3-25%]	<input type="checkbox"/>		1 Business day [E1 - 100%]	<input checked="" type="checkbox"/>
Street:		Select Distribution:	<input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX		2 day [P2-50%]	<input type="checkbox"/>		Same Day, Weekend or Statutory holiday [E2 - 200% (Laboratory opening fees may apply)]	<input type="checkbox"/>
City/Province:		Email 1 or Fax		Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm					
Postal Code:		Email 2		or tests that can not be performed according to the service level selected, you will be contacted.					
		Email 3		Analysis Request					

Invoice To		Invoice Distribution		Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below																	
Same as Report To <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		Select Invoice Distribution:																			
Copy of Invoice with Report <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		<input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX																			
Company:		Email 1 or Fax																			
Contact:		Email 2																			
Project Information				Oil and Gas Required Fields (client use)																	
ALS Account # / Quote #:		VA23-TRIT100-012		AFE/Cost Center:		PO#															
Job #:		11964		Major/Minor Code:		Routing Code:															
PO / AFE:		11964 - Task 30 - Phase 3C-4C		Requisitioner:																	
LSD:				Location:																	

ALS Lab Work Order # (lab use only):	ALS Contact:	Sampler:	ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Total metals + mercury	Dissolved metals + mercury	Total hexavalent chromium	Total trivalent chromium	TSS, TDS, T-Alkalinity, Anions scan (Br, Cl, F)	Total sulfide (low) (as H2S)	Nutrients (ammonia, ammonium, total nitrogen, total phosphorus, phenols)	VOC/MPH	EPH, PAH, LEH/MEPH	DOC	Glycols	General parameters (alkalinity)	SAMPLES ON HOLD	Sample is hazardous (please provide further details)	NUMBER OF CONTAINERS
				SCR EOP			Water	R	R	R	R	R	R	R	R	R	R	R	R			15
				pH: cond: temp:																		
				WLNG EOP	19-Jun-24	13:45	Water	F	F	F	F	F	F	F	F	F	F	F	F			15
				pH: cond: temp:			Water	F	F	F	F	F	F	F	F	F	F	F	F			
				Duplicate	19-Jun-24	13:50	Water	F	F	F	F	F	F	F	F	F	F	F	F			15
				Field Blank	↓	14:15	Water	R	R	R	R	R	R	R	R	R	R	R	R			15
				Trip Blank			Water	R	R	R	R	R	R	R	R	R	R	R	R			11

Drinking Water (DW) Samples¹ (client use)		Telephone: +1 604 253 4188		via to add on report by clicking on the drop-down list below (electronic COC only)		SAMPLE CONDITION AS RECEIVED (lab use only)			
Are samples taken from a Regulated DW System?		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO				Frozen <input type="checkbox"/>		SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/>	
Are samples for human consumption/use?		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO				Ice Packs <input type="checkbox"/> Ice Cubes <input type="checkbox"/>		Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/>	
						Cooling Initiated <input type="checkbox"/>			
						INITIAL COOLER TEMPERATURES °C		FINAL COOLER TEMPERATURES °C	
								20	

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Release	June-19/24	Time: 15:30	Received by:	Date:	Time:	Received by:	Date: Jun-19	Time: 5:25pm

CERTIFICATE OF ANALYSIS

Work Order : **VA24B4595**
Client : **Triton Environmental Consultants Ltd.**
Contact :
Address :

Telephone :
Project : 11964
PO : 11964 - Task 30 - Phase 3C-4C
C-O-C number : ----
Sampler : ----
Site : Water Analysis
Quote number : VA23-TRIT100-012_V2
No. of samples received : 1
No. of samples analysed : 1

Page : 1 of 10
Laboratory : ALS Environmental - Vancouver
Account Manager :
Address :

Telephone :
Date Samples Received : 20-Jun-2024 17:25
Date Analysis Commenced : 20-Jun-2024
Issue Date : 24-Jun-2024 09:28

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>
	Supervisor - Organics Instrumentation	Organics, Burnaby, British Columbia
	Laboratory Analyst	Inorganics, Edmonton, Alberta
	Lab Analyst	Metals, Burnaby, British Columbia
	Department Manager - Inorganics	Inorganics, Burnaby, British Columbia
	Lab Assistant	Inorganics, Burnaby, British Columbia
	Account Manager Assistant	Administration, Burnaby, British Columbia
	Team Leader - Organics	Organics, Burnaby, British Columbia
	Team Leader - Metals	Metals, Burnaby, British Columbia
	Analyst	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).

<i>Unit</i>	<i>Description</i>
-	no units
°C	degrees celsius
µg/L	micrograms per litre
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
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					Client sample ID	W LNG EOP	---	---	---	---
(Matrix: Water)					Client sampling date / time	20-Jun-2024 12:25	---	---	---	---
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4595-001	-----	-----	-----	-----	
					Result	---	---	---	---	
Field Tests										
Conductivity, field	----	EF001/VA	0.10	µS/cm	260.00	---	---	---	---	
pH, field	----	EF001/VA	0.10	pH units	7.42	---	---	---	---	
Temperature, field	----	EF001/VA	0.10	°C	27.5	---	---	---	---	
Physical Tests										
Hardness (as CaCO3), dissolved	----	EC100/VA	0.60	mg/L	59.7	---	---	---	---	
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/VA	0.60	mg/L	73.8	---	---	---	---	
Solids, total dissolved [TDS]	----	E162/VA	10	mg/L	188	---	---	---	---	
Solids, total suspended [TSS]	----	E160/VA	3.0	mg/L	<3.0	---	---	---	---	
Alkalinity, total (as CaCO3)	----	E290/VA	2.0	mg/L	116	---	---	---	---	
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L	0.0329	---	---	---	---	
Bromide	24959-67-9	E235.Br-L/VA	0.050	mg/L	<0.050	---	---	---	---	
Chloride	16887-00-6	E235.Cl/VA	0.50	mg/L	15.8	---	---	---	---	
Fluoride	16984-48-8	E235.F/VA	0.020	mg/L	0.471	---	---	---	---	
Nitrate (as N)	14797-55-8	E235.NO3-L/V A	0.0050	mg/L	<0.0050	---	---	---	---	
Nitrite (as N)	14797-65-0	E235.NO2-L/V A	0.0010	mg/L	<0.0010	---	---	---	---	
Nitrogen, total	7727-37-9	E366/VA	0.030	mg/L	1.30	---	---	---	---	
Phosphorus, total	7723-14-0	E372-U/VA	0.0020	mg/L	0.0170	---	---	---	---	
Sulfate (as SO4)	14808-79-8	E235.SO4/VA	0.30	mg/L	6.34	---	---	---	---	
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/VA	0.50	mg/L	5.15	---	---	---	---	
Total Sulfides										
Sulfide, total (as S)	18496-25-8	E395/VA	0.0015	mg/L	<0.0015	---	---	---	---	
Sulfide, un-ionized (as H2S), from total	7783-06-4	EC395/VA	0.0015	mg/L	<0.0015	---	---	---	---	
Sulfide, total (as H2S)	7783-06-4	E395/VA	0.0016	mg/L	<0.0016	---	---	---	---	
Total Metals										
Aluminum, total	7429-90-5	E420/VA	0.0030	mg/L	0.0096	---	---	---	---	
Antimony, total	7440-36-0	E420/VA	0.00010	mg/L	0.00087	---	---	---	---	



Analytical Results

Sub-Matrix: Water					Client sample ID	WLNQ EOP	----	----	----	----
(Matrix: Water)					Client sampling date / time	20-Jun-2024 12:25	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4595-001	-----	-----	-----	-----	
					Result	---	---	---	---	
Total Metals										
Arsenic, total	7440-38-2	E420/VA	0.00010	mg/L	0.00147	---	---	---	---	
Barium, total	7440-39-3	E420/VA	0.00010	mg/L	0.00541	---	---	---	---	
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	0.029	---	---	---	---	
Cadmium, total	7440-43-9	E420/VA	0.0000050	mg/L	<0.0000050	---	---	---	---	
Calcium, total	7440-70-2	E420/VA	0.050	mg/L	25.4	---	---	---	---	
Cesium, total	7440-46-2	E420/VA	0.000010	mg/L	0.000045	---	---	---	---	
Chromium, total	7440-47-3	E420/VA	0.00050	mg/L	<0.00050	---	---	---	---	
Cobalt, total	7440-48-4	E420/VA	0.00010	mg/L	0.00015	---	---	---	---	
Copper, total	7440-50-8	E420/VA	0.00050	mg/L	<0.00050	---	---	---	---	
Iron, total	7439-89-6	E420/VA	0.010	mg/L	0.541	---	---	---	---	
Lead, total	7439-92-1	E420/VA	0.000050	mg/L	<0.000050	---	---	---	---	
Lithium, total	7439-93-2	E420/VA	0.0010	mg/L	0.0204	---	---	---	---	
Magnesium, total	7439-95-4	E420/VA	0.0050	mg/L	2.52	---	---	---	---	
Manganese, total	7439-96-5	E420/VA	0.00010	mg/L	0.127	---	---	---	---	
Mercury, total	7439-97-6	E508/VA	0.0000050	mg/L	<0.0000050	---	---	---	---	
Molybdenum, total	7439-98-7	E420/VA	0.000050	mg/L	0.00836	---	---	---	---	
Nickel, total	7440-02-0	E420/VA	0.00050	mg/L	<0.00050	---	---	---	---	
Phosphorus, total	7723-14-0	E420/VA	0.050	mg/L	<0.050	---	---	---	---	
Potassium, total	7440-09-7	E420/VA	0.050	mg/L	10.5	---	---	---	---	
Rubidium, total	7440-17-7	E420/VA	0.00020	mg/L	0.0162	---	---	---	---	
Selenium, total	7782-49-2	E420/VA	0.000050	mg/L	0.000090	---	---	---	---	
Silicon, total	7440-21-3	E420/VA	0.10	mg/L	5.42	---	---	---	---	
Silver, total	7440-22-4	E420/VA	0.000010	mg/L	<0.000010	---	---	---	---	
Sodium, total	7440-23-5	E420/VA	0.050	mg/L	31.4	---	---	---	---	
Strontium, total	7440-24-6	E420/VA	0.00020	mg/L	0.100	---	---	---	---	
Sulfur, total	7704-34-9	E420/VA	0.50	mg/L	2.42	---	---	---	---	
Tellurium, total	13494-80-9	E420/VA	0.00020	mg/L	<0.00020	---	---	---	---	
Thallium, total	7440-28-0	E420/VA	0.000010	mg/L	0.000060	---	---	---	---	



Analytical Results

Sub-Matrix: Water					Client sample ID	WLNQ EOP	----	----	----	----
(Matrix: Water)					Client sampling date / time	20-Jun-2024 12:25	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4595-001	-----	-----	-----	-----	
					Result	---	---	---	---	
Total Metals										
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	0.00032	---	---	---	---	
Tungsten, total	7440-33-7	E420/VA	0.00010	mg/L	0.00021	---	---	---	---	
Uranium, total	7440-61-1	E420/VA	0.000010	mg/L	0.000438	---	---	---	---	
Vanadium, total	7440-62-2	E420/VA	0.00050	mg/L	0.00058	---	---	---	---	
Zinc, total	7440-66-6	E420/VA	0.0030	mg/L	0.0128	---	---	---	---	
Zirconium, total	7440-67-7	E420/VA	0.00020	mg/L	<0.00020	---	---	---	---	
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/VA	0.0010	mg/L	0.0077	---	---	---	---	
Antimony, dissolved	7440-36-0	E421/VA	0.00010	mg/L	0.00086	---	---	---	---	
Arsenic, dissolved	7440-38-2	E421/VA	0.00010	mg/L	0.00131	---	---	---	---	
Barium, dissolved	7440-39-3	E421/VA	0.00010	mg/L	0.00308	---	---	---	---	
Beryllium, dissolved	7440-41-7	E421/VA	0.000100	mg/L	<0.000100	---	---	---	---	
Bismuth, dissolved	7440-69-9	E421/VA	0.000050	mg/L	<0.000050	---	---	---	---	
Boron, dissolved	7440-42-8	E421/VA	0.010	mg/L	0.023	---	---	---	---	
Cadmium, dissolved	7440-43-9	E421/VA	0.0000050	mg/L	<0.0000050	---	---	---	---	
Calcium, dissolved	7440-70-2	E421/VA	0.050	mg/L	20.6	---	---	---	---	
Cesium, dissolved	7440-46-2	E421/VA	0.000010	mg/L	0.000045	---	---	---	---	
Chromium, dissolved	7440-47-3	E421/VA	0.00050	mg/L	<0.00050	---	---	---	---	
Cobalt, dissolved	7440-48-4	E421/VA	0.00010	mg/L	<0.00010	---	---	---	---	
Copper, dissolved	7440-50-8	E421/VA	0.00020	mg/L	0.00026	---	---	---	---	
Iron, dissolved	7439-89-6	E421/VA	0.010	mg/L	0.015	---	---	---	---	
Lead, dissolved	7439-92-1	E421/VA	0.000050	mg/L	<0.000050	---	---	---	---	
Lithium, dissolved	7439-93-2	E421/VA	0.0010	mg/L	0.0182	---	---	---	---	
Magnesium, dissolved	7439-95-4	E421/VA	0.0050	mg/L	2.00	---	---	---	---	
Manganese, dissolved	7439-96-5	E421/VA	0.00010	mg/L	0.0773	---	---	---	---	
Mercury, dissolved	7439-97-6	E509/VA	0.0000050	mg/L	<0.0000050	---	---	---	---	
Molybdenum, dissolved	7439-98-7	E421/VA	0.000050	mg/L	0.00848	---	---	---	---	
Nickel, dissolved	7440-02-0	E421/VA	0.00050	mg/L	<0.00050	---	---	---	---	



Analytical Results

Sub-Matrix: Water					Client sample ID	WLNQ EOP	----	----	----	----
(Matrix: Water)					Client sampling date / time	20-Jun-2024 12:25	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4595-001	-----	-----	-----	-----	
					Result	---	---	---	---	
Dissolved Metals										
Phosphorus, dissolved	7723-14-0	E421/VA	0.050	mg/L	<0.050	---	---	---	---	
Potassium, dissolved	7440-09-7	E421/VA	0.050	mg/L	10.4	---	---	---	---	
Rubidium, dissolved	7440-17-7	E421/VA	0.00020	mg/L	0.0154	---	---	---	---	
Selenium, dissolved	7782-49-2	E421/VA	0.000050	mg/L	0.000093	---	---	---	---	
Silicon, dissolved	7440-21-3	E421/VA	0.050	mg/L	5.51	---	---	---	---	
Silver, dissolved	7440-22-4	E421/VA	0.000010	mg/L	<0.000010	---	---	---	---	
Sodium, dissolved	7440-23-5	E421/VA	0.050	mg/L	26.9	---	---	---	---	
Strontium, dissolved	7440-24-6	E421/VA	0.00020	mg/L	0.0917	---	---	---	---	
Sulfur, dissolved	7704-34-9	E421/VA	0.50	mg/L	2.16	---	---	---	---	
Tellurium, dissolved	13494-80-9	E421/VA	0.00020	mg/L	<0.00020	---	---	---	---	
Thallium, dissolved	7440-28-0	E421/VA	0.000010	mg/L	0.000060	---	---	---	---	
Thorium, dissolved	7440-29-1	E421/VA	0.00010	mg/L	<0.00010	---	---	---	---	
Tin, dissolved	7440-31-5	E421/VA	0.00010	mg/L	<0.00010	---	---	---	---	
Titanium, dissolved	7440-32-6	E421/VA	0.00030	mg/L	<0.00030	---	---	---	---	
Tungsten, dissolved	7440-33-7	E421/VA	0.00010	mg/L	0.00021	---	---	---	---	
Uranium, dissolved	7440-61-1	E421/VA	0.000010	mg/L	0.000517	---	---	---	---	
Vanadium, dissolved	7440-62-2	E421/VA	0.00050	mg/L	0.00081	---	---	---	---	
Zinc, dissolved	7440-66-6	E421/VA	0.0010	mg/L	0.0020	---	---	---	---	
Zirconium, dissolved	7440-67-7	E421/VA	0.00020	mg/L	<0.00020	---	---	---	---	
Dissolved mercury filtration location	----	EP509/VA	-	-	Field	---	---	---	---	
Dissolved metals filtration location	----	EP421/VA	-	-	Field	---	---	---	---	
Speciated Metals										
Chromium, hexavalent [Cr VI], total	18540-29-9	E532/VA	0.00050	mg/L	<0.00050	---	---	---	---	
Chromium, trivalent [Cr III], total	16065-83-1	EC535/VA	0.00050	mg/L	<0.00050	---	---	---	---	
Aggregate Organics										
Phenols, total (4AAP)	----	E562/EO	0.0010	mg/L	<0.0010	---	---	---	---	
Volatile Organic Compounds										
Chlorobenzene	108-90-7	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Chloromethane	74-87-3	E611C/VA	5.0	µg/L	<5.0	---	---	---	---	
Dichlorobenzene, 1,2-	95-50-1	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	



Analytical Results

Sub-Matrix: Water					Client sample ID	WLNQ EOP	----	----	----	----
(Matrix: Water)					Client sampling date / time	20-Jun-2024 12:25	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4595-001	-----	-----	-----	-----	
					Result	---	---	---	---	
Volatile Organic Compounds										
Dichlorobenzene, 1,3-	541-73-1	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dichlorobenzene, 1,4-	106-46-7	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dichloropropane, 1,2-	78-87-5	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dichloropropylene, cis+trans-1,3-	542-75-6	E611C/VA	0.75	µg/L	<0.75	---	---	---	---	
Dichloropropylene, cis-1,3-	10061-01-5	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Tetrachloroethane, 1,1,1,2-	630-20-6	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Tetrachloroethane, 1,1,2,2-	79-34-5	E611C/VA	0.20	µg/L	<0.20	---	---	---	---	
Trichloroethane, 1,1,2-	79-00-5	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Trichlorofluoromethane	75-69-4	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Volatile Organic Compounds [Drycleaning]										
Carbon tetrachloride	56-23-5	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Chloroethane	75-00-3	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dichloroethane, 1,1-	75-34-3	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dichloroethane, 1,2-	107-06-2	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dichloroethylene, 1,1-	75-35-4	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dichloroethylene, cis-1,2-	156-59-2	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dichloroethylene, trans-1,2-	156-60-5	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dichloromethane	75-09-2	E611C/VA	1.0	µg/L	<1.0	---	---	---	---	
Dichloropropylene, trans-1,3-	10061-02-6	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Tetrachloroethylene	127-18-4	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Trichloroethane, 1,1,1-	71-55-6	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Trichloroethylene	79-01-6	E611C/VA	0.50	µg/L	0.68	---	---	---	---	
Vinyl chloride	75-01-4	E611C/VA	0.40	µg/L	<0.40	---	---	---	---	
Volatile Organic Compounds [Fuels]										
Benzene	71-43-2	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Ethylbenzene	100-41-4	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Styrene	100-42-5	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Toluene	108-88-3	E611C/VA	0.40	µg/L	<0.40	---	---	---	---	
Xylene, m+p-	179601-23-1	E611C/VA	0.40	µg/L	0.48	---	---	---	---	



Analytical Results

Sub-Matrix: Water					Client sample ID	WLNQ EOP	----	----	----	----
(Matrix: Water)					Client sampling date / time	20-Jun-2024 12:25	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4595-001	-----	-----	-----	-----	
					Result	----	----	----	----	
Volatile Organic Compounds [Fuels]										
Xylene, o-	95-47-6	E611C/VA	0.30	µg/L	<0.30	----	----	----	----	
Xylenes, total	1330-20-7	E611C/VA	0.50	µg/L	<0.50	----	----	----	----	
Volatile Organic Compounds [THMs]										
Bromodichloromethane	75-27-4	E611C/VA	0.50	µg/L	<0.50	----	----	----	----	
Bromoform	75-25-2	E611C/VA	0.50	µg/L	<0.50	----	----	----	----	
Chloroform	67-66-3	E611C/VA	0.50	µg/L	<0.50	----	----	----	----	
Dibromochloromethane	124-48-1	E611C/VA	0.50	µg/L	<0.50	----	----	----	----	
Hydrocarbons										
EPH (C10-C19)	----	E601A/VA	250	µg/L	<250	----	----	----	----	
EPH (C19-C32)	----	E601A/VA	250	µg/L	<250	----	----	----	----	
VHw (C6-C10)	----	E581.VH+F1/ VA	100	µg/L	<100	----	----	----	----	
HEPHw	----	EC600A/VA	250	µg/L	<250	----	----	----	----	
LEPHw	----	EC600A/VA	250	µg/L	<250	----	----	----	----	
VPHw	----	EC580A/VA	100	µg/L	<100	----	----	----	----	
Hydrocarbons Surrogates										
Bromobenzotrifluoride, 2- (EPH surrogate)	392-83-6	E601A/VA	1.0	%	86.2	----	----	----	----	
Dichlorotoluene, 3,4-	95-75-0	E581.VH+F1/ VA	1.0	%	93.2	----	----	----	----	
Volatile Organic Compounds Surrogates										
Bromofluorobenzene, 4-	460-00-4	E611C/VA	1.0	%	83.7	----	----	----	----	
Difluorobenzene, 1,4-	540-36-3	E611C/VA	1.0	%	101	----	----	----	----	
Polycyclic Aromatic Hydrocarbons										
Acenaphthene	83-32-9	E641A/VA	0.010	µg/L	<0.010	----	----	----	----	
Acenaphthylene	208-96-8	E641A/VA	0.010	µg/L	<0.010	----	----	----	----	
Acridine	260-94-6	E641A/VA	0.010	µg/L	<0.010	----	----	----	----	
Anthracene	120-12-7	E641A/VA	0.010	µg/L	<0.010	----	----	----	----	
Benz(a)anthracene	56-55-3	E641A/VA	0.010	µg/L	<0.010	----	----	----	----	
Benzo(a)pyrene	50-32-8	E641A/VA	0.0050	µg/L	<0.0050	----	----	----	----	
Benzo(b+)fluoranthene	n/a	E641A/VA	0.010	µg/L	<0.010	----	----	----	----	



Analytical Results

Sub-Matrix: Water					Client sample ID	WLNQ EOP	----	----	----	----
(Matrix: Water)					Client sampling date / time	20-Jun-2024 12:25	---	---	---	---
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4595-001	-----	-----	-----	-----	
					Result	---	---	---	---	
Polycyclic Aromatic Hydrocarbons										
Benzo(b+j+k)fluoranthene	n/a	E641A/VA	0.015	µg/L	<0.015	---	---	---	---	
Benzo(g,h,i)perylene	191-24-2	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Benzo(k)fluoranthene	207-08-9	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Chrysene	218-01-9	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Dibenz(a,h)anthracene	53-70-3	E641A/VA	0.0050	µg/L	<0.0050	---	---	---	---	
Fluoranthene	206-44-0	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Fluorene	86-73-7	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Indeno(1,2,3-c,d)pyrene	193-39-5	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Methylnaphthalene, 1-	90-12-0	E641A/VA	0.010	µg/L	0.015	---	---	---	---	
Methylnaphthalene, 2-	91-57-6	E641A/VA	0.010	µg/L	0.016	---	---	---	---	
Naphthalene	91-20-3	E641A/VA	0.050	µg/L	0.122	---	---	---	---	
Phenanthrene	85-01-8	E641A/VA	0.020	µg/L	<0.020	---	---	---	---	
Pyrene	129-00-0	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Quinoline	91-22-5	E641A/VA	0.050	µg/L	<0.050	---	---	---	---	
Polycyclic Aromatic Hydrocarbons Surrogates										
Chrysene-d12	1719-03-5	E641A/VA	0.1	%	107	---	---	---	---	
Naphthalene-d8	1146-65-2	E641A/VA	0.1	%	93.6	---	---	---	---	
Phenanthrene-d10	1517-22-2	E641A/VA	0.1	%	97.2	---	---	---	---	
Glycols										
Diethylene glycol	111-46-6	E680E/VA	5.0	mg/L	<5.0	---	---	---	---	
Ethylene glycol	107-21-1	E680E/VA	5.0	mg/L	<5.0	---	---	---	---	
Propylene glycol, 1,2-	57-55-6	E680E/VA	5.0	mg/L	<5.0	---	---	---	---	
Triethylene glycol	112-27-6	E680E/VA	5.0	mg/L	<5.0	---	---	---	---	
Glycols, total (EG+DEG+PG)	----	E680E/VA	10	mg/L	<10	---	---	---	---	
Glycols Surrogates										
Propanediol, 1,3-	504-63-2	E680E/VA	1.0	%	109	---	---	---	---	

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

<p>Work Order : VA24B4595</p> <p>Client : Triton Environmental Consultants Ltd.</p> <p>Contact : [REDACTED]</p> <p>Address : [REDACTED]</p> <p>Telephone : [REDACTED]</p> <p>Project : 11964</p> <p>PO : 11964 - Task 30 - Phase 3C-4C</p> <p>C-O-C number : ----</p> <p>Sampler : ----</p> <p>Site : Water Analysis</p> <p>Quote number : VA23-TRIT100-012_V2</p> <p>No. of samples received : 1</p> <p>No. of samples analysed : 1</p>	<p>Page : 1 of 14</p> <p>Laboratory : ALS Environmental - Vancouver</p> <p>Account Manager : [REDACTED]</p> <p>Address : [REDACTED]</p> <p>Telephone : [REDACTED]</p> <p>Date Samples Received : 20-Jun-2024 17:25</p> <p>Issue Date : 24-Jun-2024 09:28</p>
---	---

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)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.



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 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		
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry											
Amber glass total (sulfuric acid) WLNG EOP	E562	20-Jun-2024	22-Jun-2024	28 days	2 days	✔	22-Jun-2024	28 days	2 days	✔	
Anions and Nutrients : Ammonia by Fluorescence											
Amber glass total (sulfuric acid) WLNG EOP	E298	20-Jun-2024	20-Jun-2024	28 days	0 days	✔	21-Jun-2024	28 days	1 days	✔	
Anions and Nutrients : Bromide in Water by IC (Low Level)											
HDPE WLNG EOP	E235.Br-L	20-Jun-2024	20-Jun-2024	28 days	0 days	✔	21-Jun-2024	28 days	1 days	✔	
Anions and Nutrients : Chloride in Water by IC											
HDPE WLNG EOP	E235.Cl	20-Jun-2024	20-Jun-2024	28 days	0 days	✔	21-Jun-2024	28 days	1 days	✔	
Anions and Nutrients : Fluoride in Water by IC											
HDPE WLNG EOP	E235.F	20-Jun-2024	20-Jun-2024	28 days	0 days	✔	21-Jun-2024	28 days	1 days	✔	
Anions and Nutrients : Nitrate in Water by IC (Low Level)											
HDPE WLNG EOP	E235.NO3-L	20-Jun-2024	20-Jun-2024	3 days	0 days	✔	21-Jun-2024	3 days	1 days	✔	
Anions and Nutrients : Nitrite in Water by IC (Low Level)											
HDPE WLNG EOP	E235.NO2-L	20-Jun-2024	20-Jun-2024	3 days	0 days	✔	21-Jun-2024	3 days	1 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	
Anions and Nutrients : Sulfate in Water by IC										
HDPE WLNG EOP	E235.SO4	20-Jun-2024	20-Jun-2024	28 days	0 days	✓	21-Jun-2024	28 days	1 days	✓
Anions and Nutrients : Total Nitrogen by Colourimetry										
Amber glass total (sulfuric acid) WLNG EOP	E366	20-Jun-2024	20-Jun-2024	28 days	0 days	✓	21-Jun-2024	28 days	1 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) WLNG EOP	E372-U	20-Jun-2024	20-Jun-2024	28 days	0 days	✓	21-Jun-2024	28 days	1 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial - dissolved (lab preserved) WLNG EOP	E509	20-Jun-2024	21-Jun-2024	28 days	1 days	✓	21-Jun-2024	28 days	1 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) WLNG EOP	E421	20-Jun-2024	21-Jun-2024	180 days	1 days	✓	21-Jun-2024	180 days	1 days	✓
Field Tests : Field pH,EC,Salinity, TDS, Cl2,CIO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial - total (lab preserved) WLNG EOP	EF001	20-Jun-2024	----	----	----		21-Jun-2024	----	1 days	
Glycols : Glycols (4 analytes) by GC-FID										
Glass vial WLNG EOP	E680E	20-Jun-2024	21-Jun-2024	7 days	1 days	✓	21-Jun-2024	40 days	0 days	✓
Hydrocarbons : BC PHCs - EPH by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate) WLNG EOP	E601A	20-Jun-2024	21-Jun-2024	14 days	1 days	✓	21-Jun-2024	40 days	0 days	✓
Hydrocarbons : VH and F1 by Headspace GC-FID										
Glass vial (sodium bisulfate) WLNG EOP	E581.VH+F1	20-Jun-2024	21-Jun-2024	14 days	1 days	✓	21-Jun-2024	14 days	1 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	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) WLNG EOP	E358-L	20-Jun-2024	20-Jun-2024	28 days	0 days	✔	20-Jun-2024	28 days	0 days	✔
Physical Tests : Alkalinity Species by Titration										
HDPE WLNG EOP	E290	20-Jun-2024	20-Jun-2024	14 days	0 days	✔	21-Jun-2024	14 days	1 days	✔
Physical Tests : TDS by Gravimetry										
HDPE WLNG EOP	E162	20-Jun-2024	----	----	----		21-Jun-2024	7 days	1 days	✔
Physical Tests : TSS by Gravimetry										
HDPE WLNG EOP	E160	20-Jun-2024	----	----	----		21-Jun-2024	7 days	1 days	✔
Polycyclic Aromatic Hydrocarbons : PAHs in Water by Hexane LVI GC-MS										
Amber glass/Teflon lined cap (sodium bisulfate) WLNG EOP	E641A	20-Jun-2024	21-Jun-2024	14 days	1 days	✔	21-Jun-2024	40 days	0 days	✔
Speciated Metals : Total Hexavalent Chromium (Cr VI) by IC										
UV-inhibited HDPE - total (sodium hydroxide) WLNG EOP	E532	20-Jun-2024	----	----	----		20-Jun-2024	28 days	0 days	✔
Total Metals : Total Mercury in Water by CVAAS										
Glass vial - total (lab preserved) WLNG EOP	E508	20-Jun-2024	21-Jun-2024	28 days	1 days	✔	21-Jun-2024	28 days	1 days	✔
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) WLNG EOP	E420	20-Jun-2024	21-Jun-2024	180 days	1 days	✔	21-Jun-2024	180 days	1 days	✔
Total Sulfides : Total Sulfide by Colourimetry (Automated Flow)										
HDPE total (zinc acetate+sodium hydroxide) WLNG EOP	E395	20-Jun-2024	----	----	----		21-Jun-2024	7 days	1 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	
Volatile Organic Compounds : VOCs (BC List) by Headspace GC-MS										
Glass vial (sodium bisulfate) WLNG EOP	E611C	20-Jun-2024	21-Jun-2024	14 days	1 days	✔	21-Jun-2024	14 days	1 days	✔

Legend & Qualifier Definitions

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 (%)		
			QC	Regular	Actual	Expected	Evaluation
Analytical Methods							
Laboratory Duplicates (DUP)							
Alkalinity Species by Titration	E290	1505830	0	2	0.0	5.0	✖
Ammonia by Fluorescence	E298	1505794	1	1	100.0	5.0	✔
Bromide in Water by IC (Low Level)	E235.Br-L	1505827	1	1	100.0	5.0	✔
Chloride in Water by IC	E235.Cl	1505823	1	2	50.0	5.0	✔
Dissolved Mercury in Water by CVAAS	E509	1508073	1	1	100.0	5.0	✔
Dissolved Metals in Water by CRC ICPMS	E421	1506025	1	1	100.0	5.0	✔
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1505791	1	1	100.0	5.0	✔
Fluoride in Water by IC	E235.F	1505826	1	2	50.0	5.0	✔
Glycols (4 analytes) by GC-FID	E680E	1506589	1	2	50.0	5.0	✔
Nitrate in Water by IC (Low Level)	E235.NO3-L	1505824	1	2	50.0	5.0	✔
Nitrite in Water by IC (Low Level)	E235.NO2-L	1505825	1	2	50.0	5.0	✔
Phenols (4AAP) in Water by Colorimetry	E562	1508962	1	9	11.1	5.0	✔
Sulfate in Water by IC	E235.SO4	1505822	1	2	50.0	5.0	✔
TDS by Gravimetry	E162	1505946	1	1	100.0	5.0	✔
Total Hexavalent Chromium (Cr VI) by IC	E532	1505872	1	3	33.3	5.0	✔
Total Mercury in Water by CVAAS	E508	1508072	1	4	25.0	5.0	✔
Total Metals in Water by CRC ICPMS	E420	1506501	1	1	100.0	5.0	✔
Total Nitrogen by Colourimetry	E366	1505792	1	1	100.0	5.0	✔
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1505793	1	1	100.0	5.0	✔
Total Sulfide by Colourimetry (Automated Flow)	E395	1506366	1	1	100.0	5.0	✔
TSS by Gravimetry	E160	1505948	1	1	100.0	5.0	✔
VH and F1 by Headspace GC-FID	E581.VH+F1	1506279	1	2	50.0	5.0	✔
VOCs (BC List) by Headspace GC-MS	E611C	1506281	1	1	100.0	5.0	✔
Laboratory Control Samples (LCS)							
Alkalinity Species by Titration	E290	1505830	1	2	50.0	5.0	✔
Ammonia by Fluorescence	E298	1505794	1	1	100.0	5.0	✔
BC PHCs - EPH by GC-FID	E601A	1506032	1	19	5.2	5.0	✔
Bromide in Water by IC (Low Level)	E235.Br-L	1505827	1	1	100.0	5.0	✔
Chloride in Water by IC	E235.Cl	1505823	1	2	50.0	5.0	✔
Dissolved Mercury in Water by CVAAS	E509	1508073	1	1	100.0	5.0	✔
Dissolved Metals in Water by CRC ICPMS	E421	1506025	1	1	100.0	5.0	✔
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1505791	1	1	100.0	5.0	✔
Fluoride in Water by IC	E235.F	1505826	1	2	50.0	5.0	✔
Glycols (4 analytes) by GC-FID	E680E	1506589	1	2	50.0	5.0	✔
Nitrate in Water by IC (Low Level)	E235.NO3-L	1505824	1	2	50.0	5.0	✔
Nitrite in Water by IC (Low Level)	E235.NO2-L	1505825	1	2	50.0	5.0	✔



Matrix: **Water**

Evaluation: * = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
<i>Analytical Methods</i>							
Laboratory Control Samples (LCS) - Continued							
PAHs in Water by Hexane LVI GC-MS	E641A	1506033	1	14	7.1	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	1508962	1	9	11.1	5.0	✓
Sulfate in Water by IC	E235.SO4	1505822	1	2	50.0	5.0	✓
TDS by Gravimetry	E162	1505946	1	1	100.0	5.0	✓
Total Hexavalent Chromium (Cr VI) by IC	E532	1505872	1	3	33.3	5.0	✓
Total Mercury in Water by CVAAS	E508	1508072	1	4	25.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1506501	1	1	100.0	5.0	✓
Total Nitrogen by Colourimetry	E366	1505792	1	1	100.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1505793	1	1	100.0	5.0	✓
Total Sulfide by Colourimetry (Automated Flow)	E395	1506366	1	1	100.0	5.0	✓
TSS by Gravimetry	E160	1505948	1	1	100.0	5.0	✓
VH and F1 by Headspace GC-FID	E581.VH+F1	1506279	1	2	50.0	5.0	✓
VOCs (BC List) by Headspace GC-MS	E611C	1506281	1	1	100.0	5.0	✓
Method Blanks (MB)							
Alkalinity Species by Titration	E290	1505830	1	2	50.0	5.0	✓
Ammonia by Fluorescence	E298	1505794	1	1	100.0	5.0	✓
BC PHCs - EPH by GC-FID	E601A	1506032	1	19	5.2	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	1505827	1	1	100.0	5.0	✓
Chloride in Water by IC	E235.Cl	1505823	1	2	50.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1508073	1	1	100.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1506025	1	1	100.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1505791	1	1	100.0	5.0	✓
Fluoride in Water by IC	E235.F	1505826	1	2	50.0	5.0	✓
Glycols (4 analytes) by GC-FID	E680E	1506589	1	2	50.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1505824	1	2	50.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1505825	1	2	50.0	5.0	✓
PAHs in Water by Hexane LVI GC-MS	E641A	1506033	1	14	7.1	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	1508962	1	9	11.1	5.0	✓
Sulfate in Water by IC	E235.SO4	1505822	1	2	50.0	5.0	✓
TDS by Gravimetry	E162	1505946	1	1	100.0	5.0	✓
Total Hexavalent Chromium (Cr VI) by IC	E532	1505872	1	3	33.3	5.0	✓
Total Mercury in Water by CVAAS	E508	1508072	1	4	25.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1506501	1	1	100.0	5.0	✓
Total Nitrogen by Colourimetry	E366	1505792	1	1	100.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1505793	1	1	100.0	5.0	✓
Total Sulfide by Colourimetry (Automated Flow)	E395	1506366	1	1	100.0	5.0	✓
TSS by Gravimetry	E160	1505948	1	1	100.0	5.0	✓
VH and F1 by Headspace GC-FID	E581.VH+F1	1506279	1	2	50.0	5.0	✓
VOCs (BC List) by Headspace GC-MS	E611C	1506281	1	1	100.0	5.0	✓



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

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
<i>Analytical Methods</i>							
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1505794	0	1	0.0	5.0	✘
Bromide in Water by IC (Low Level)	E235.Br-L	1505827	0	1	0.0	5.0	✘
Chloride in Water by IC	E235.Cl	1505823	1	2	50.0	5.0	✔
Dissolved Mercury in Water by CVAAS	E509	1508073	0	1	0.0	5.0	✘
Dissolved Metals in Water by CRC ICPMS	E421	1506025	0	1	0.0	5.0	✘
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1505791	0	1	0.0	5.0	✘
Fluoride in Water by IC	E235.F	1505826	1	2	50.0	5.0	✔
Nitrate in Water by IC (Low Level)	E235.NO3-L	1505824	1	2	50.0	5.0	✔
Nitrite in Water by IC (Low Level)	E235.NO2-L	1505825	1	2	50.0	5.0	✔
Phenols (4AAP) in Water by Colorimetry	E562	1508962	1	9	11.1	5.0	✔
Sulfate in Water by IC	E235.SO4	1505822	1	2	50.0	5.0	✔
Total Hexavalent Chromium (Cr VI) by IC	E532	1505872	1	3	33.3	5.0	✔
Total Mercury in Water by CVAAS	E508	1508072	1	4	25.0	5.0	✔
Total Metals in Water by CRC ICPMS	E420	1506501	0	1	0.0	5.0	✘
Total Nitrogen by Colourimetry	E366	1505792	0	1	0.0	5.0	✘
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1505793	0	1	0.0	5.0	✘
Total Sulfide by Colourimetry (Automated Flow)	E395	1506366	0	1	0.0	5.0	✘
VH and F1 by Headspace GC-FID	E581.VH+F1	1506279	1	2	50.0	5.0	✔
VOCs (BC List) by Headspace GC-MS	E611C	1506281	1	1	100.0	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
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.
Bromide in Water by IC (Low Level)	E235.Br-L 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 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 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 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 ALS Environmental - Vancouver	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 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 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.



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
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)
Dissolved Organic Carbon by Combustion (Low Level)	E358-L 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 ₂ . 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 Nitrogen by Colourimetry	E366 ALS Environmental - Vancouver	Water	Chinchilla Scientific Nitrate Method, 2011	Following digestion, total nitrogen is determined colourimetrically using a discrete analyzer utilizing the vanadium chloride reduction method. This method of analysis is approved under US EPA 40 CFR Part 136 (May 2021).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U 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 Sulfide by Colourimetry (Automated Flow)	E395 ALS Environmental - Vancouver	Water	APHA 4500 -S E-Auto-Colorimetry	Sulfide is determined using the gas dialysis automated methylene blue colourimetric method. Results expressed "as H ₂ S" if reported represent the maximum possible H ₂ S concentration based on the total sulfide concentration in the sample. The H ₂ S calculation converts Total Sulphide as (S ₂ ⁻) and reports it as Total Sulphide as (H ₂ S)
Total Metals in Water by CRC ICPMS	E420 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. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Metals in Water by CRC ICPMS	E421 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. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Mercury in Water by CVAAS	E508 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 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.



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Total Hexavalent Chromium (Cr VI) by IC	E532 ALS Environmental - Vancouver	Water	APHA 3500-Cr C (Ion Chromatography)	Hexavalent Chromium is measured by Ion chromatography-Post column reaction and UV detection. Results are based on an un-filtered, field-preserved sample.
Phenols (4AAP) in Water by Colorimetry	E562 ALS Environmental - Edmonton	Water	EPA 9066	This automated method is based on the distillation of phenol and subsequent reaction of the distillate with alkaline ferricyanide (K ₃ Fe(CN) ₆) and 4-amino-antipyrine (4-AAP) to form a red complex which is measured colorimetrically.
VH and F1 by Headspace GC-FID	E581.VH+F1 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. 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 ALS Environmental - Vancouver	Water	BC MOE Lab Manual	Sample extracts are analyzed by GC-FID for BC hydrocarbon fractions.
VOCs (BC List) by Headspace GC-MS	E611C 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. Total Xylenes is the sum of m,p-Xylene & o-Xylene. Total BTEX is the sum of Benzene, Toluene, Ethylbenzene, & Total Xylenes. Total BTEX+Styrene is the sum of Total BTEX & Styrene. Total Trihalomethanes [THMs] is the sum of Bromodichloromethane, Bromoform, Chloroform, & Dibromochloromethane.
PAHs in Water by Hexane LVI GC-MS	E641A ALS Environmental - Vancouver	Water	EPA 8270E (mod)	Polycyclic Aromatic Hydrocarbons (PAHs) are analyzed by large volume injection (LVI) GC-MS.
Glycols (4 analytes) by GC-FID	E680E ALS Environmental - Vancouver	Water	EPA 8015D (mod)	Derivatized glycols are analyzed by GC-FID.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Vancouver	Water	APHA 2340B	"Hardness (as CaCO ₃), dissolved" is calculated from the sum of dissolved 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.



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
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.
Un-ionized Total Hydrogen Sulfide (calculated)	EC395 ALS Environmental - Vancouver	Water	APHA 4500 -S H	Un-ionized sulfide is calculated using results from total sulfide analysis, pH, temperature, and ionic strength of the sample. Calculation of un-ionized sulfide using total sulfide concentrations may be biased high due to particulate forms of sulfide measured during total sulfide testing.
Total Trivalent Chromium (Cr III) by Calculation	EC535 ALS Environmental - Vancouver	Water	APHA 3030B/6020A/EPA 7196A (mod)	Chromium (III)-Total is calculated as the difference between the total chromium and the total hexavalent chromium (Cr(VI)) results. The Limit of Reporting for Chromium (III) varies as a function of the test results.
VPH: VH-BTEX-Styrene	EC580A ALS Environmental - Vancouver	Water	BC MOE Lab Manual (VPH in Water and Solids) (mod)	Volatile Petroleum Hydrocarbons (VPH) is calculated as follows: VPHw = Volatile Hydrocarbons (VH C6-C10) minus benzene, toluene, ethylbenzene, xylenes (BTEX) and styrene.
LEPH and HEPH: EPH-PAH	EC600A ALS Environmental - Vancouver	Water	BC MOE Lab Manual (LEPH and HEPH)	Light Extractable Petroleum Hydrocarbons (LEPH) and Heavy Extractable Petroleum Hydrocarbons (HEPH) are calculated as follows: LEPH = Extractable Petroleum Hydrocarbons (EPH10-19) minus Acenaphthene, Acridine, Anthracene, Fluorene, Naphthalene and Phenanthrene; HEPH = Extractable Petroleum Hydrocarbons (EPH19-32) minus Benz(a)anthracene, Benzo(a)pyrene, Fluoranthene, and Pyrene.
Field pH,EC,Salinity, TDS, Cl ₂ ,ClO ₂ ,ORP,DO, Turbidity,T,T-P,o-PO ₄ ,NH ₃ ,Chloramine	EF001 ALS Environmental - Vancouver	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl ₂ ,ClO ₂ ,ORP,DO, Turbidity,T,T-P,o-PO ₄ ,NH ₃ or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

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.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Vancouver	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Nitrogen in water	EP366 ALS Environmental - Vancouver	Water	APHA 4500-P J (mod)	Samples for total nitrogen analysis are digested using a heated persulfate digestion. Nitrogen compounds are converted to nitrate in this digestion.
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Vancouver	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.



<i>Preparation Methods</i>	<i>Method / Lab</i>	<i>Matrix</i>	<i>Method Reference</i>	<i>Method Descriptions</i>
Dissolved Metals Water Filtration	EP421 ALS Environmental - Vancouver	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO ₃ .
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Vancouver	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.
VOCs Preparation for Headspace Analysis	EP581 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 the GC/MS-FID system.
PHCs and PAHs Hexane Extraction	EP601 ALS Environmental - Vancouver	Water	EPA 3511 (mod)	Petroleum Hydrocarbons (PHCs) and Polycyclic Aromatic Hydrocarbons (PAHs) are extracted using a hexane liquid-liquid extraction.
Glycols Extraction and Derivatization (BC Only)	EP680E ALS Environmental - Vancouver	Water	EPA 8015D (mod)	Aqueous sample is derivatized and extracted with organic solvent.

QUALITY CONTROL REPORT

Work Order : **VA24B4595**

Client : Triton Environmental Consultants Ltd.

Contact : [Redacted]

Address : [Redacted]

Telephone : [Redacted]

Project : 11964

PO : 11964 - Task 30 - Phase 3C-4C

C-O-C number : ----

Sampler : ----

Site : Water Analysis

Quote number : VA23-TRIT100-012_V2

No. of samples received : 1

No. of samples analysed : 1

Page : 1 of 21

Laboratory : ALS Environmental - Vancouver

Account Manager : [Redacted]

Address : [Redacted]

Telephone : [Redacted]

Date Samples Received : 20-Jun-2024 17:25

Date Analysis Commenced : 20-Jun-2024

Issue Date : 24-Jun-2024 09:28

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
[Redacted]	Supervisor - Organics Instrumentation	Vancouver Organics, Burnaby, British Columbia
[Redacted]	Laboratory Analyst	Edmonton Inorganics, Edmonton, Alberta
[Redacted]	Lab Analyst	Vancouver Metals, Burnaby, British Columbia
[Redacted]	Department Manager - Inorganics	Vancouver Inorganics, Burnaby, British Columbia
[Redacted]	Lab Assistant	Vancouver Inorganics, Burnaby, British Columbia
[Redacted]	Account Manager Assistant	Vancouver Administration, Burnaby, British Columbia
[Redacted]	Team Leader - Organics	Vancouver Organics, Burnaby, British Columbia
[Redacted]	Team Leader - Metals	Vancouver Metals, Burnaby, British Columbia
[Redacted]	Analyst	Vancouver Metals, Burnaby, British Columbia

Page : 2 of 21
Work Order : VA24B4595
Client : Triton Environmental Consultants Ltd.
Project : 11964



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: 1505946)											
VA24B4595-001	WLNG EOP	Solids, total dissolved [TDS]	----	E162	20	mg/L	188	186	1	Diff <2x LOR	----
Physical Tests (QC Lot: 1505948)											
VA24B4595-001	WLNG EOP	Solids, total suspended [TSS]	----	E160	3.0	mg/L	<3.0	<3.0	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1505792)											
VA24B4595-001	WLNG EOP	Nitrogen, total	7727-37-9	E366	0.030	mg/L	1.30	1.30	0.321%	20%	----
Anions and Nutrients (QC Lot: 1505793)											
VA24B4595-001	WLNG EOP	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0170	0.0172	0.0002	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1505794)											
VA24B4595-001	WLNG EOP	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0329	0.0329	0.00005	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1505822)											
VA24B4595-001	WLNG EOP	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	6.34	6.26	1.32%	20%	----
Anions and Nutrients (QC Lot: 1505823)											
VA24B4595-001	WLNG EOP	Chloride	16887-00-6	E235.Cl	0.50	mg/L	15.8	15.8	0.143%	20%	----
Anions and Nutrients (QC Lot: 1505824)											
VA24B4595-001	WLNG EOP	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: 1505825)											
VA24B4595-001	WLNG EOP	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: 1505826)											
VA24B4595-001	WLNG EOP	Fluoride	16984-48-8	E235.F	0.020	mg/L	0.471	0.466	1.18%	20%	----
Anions and Nutrients (QC Lot: 1505827)											
VA24B4595-001	WLNG EOP	Bromide	24959-67-9	E235.Br-L	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1505791)											
VA24B4595-001	WLNG EOP	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	5.15	5.46	5.94%	20%	----
Total Sulfides (QC Lot: 1506366)											
VA24B4595-001	WLNG EOP	Sulfide, total (as S)	18496-25-8	E395	0.0015	mg/L	<0.0015	<0.0015	0	Diff <2x LOR	----
Total Metals (QC Lot: 1506501)											
VA24B4595-001	WLNG EOP	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0096	0.0095	0.0002	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00087	0.00089	0.00001	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00147	0.00142	3.19%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.00541	0.00566	4.41%	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 (QC Lot: 1506501) - continued											
VA24B4595-001	WLNG EOP	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	0.029	0.029	0.0004	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	25.4	24.3	4.45%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000045	0.000044	0.000001	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	0.00015	0.00015	0.000006	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	0.541	0.552	2.18%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0204	0.0200	1.61%	20%	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	2.52	2.53	0.352%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.127	0.127	0.440%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.00836	0.00859	2.68%	20%	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	<0.00050	<0.00050	0	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	10.5	10.5	0.427%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.0162	0.0169	4.22%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000090	0.000072	0.000018	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	5.42	5.50	1.43%	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	31.4	31.8	1.33%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.100	0.104	3.52%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	2.42	2.54	0.12	Diff <2x LOR	----
		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	0.000060	0.000062	0.000001	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	0.00032	<0.00030	0.00002	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	0.00021	0.00022	0.00001	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000438	0.000443	1.05%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00058	0.00055	0.00003	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.0128	0.0131	0.0003	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: 1506501) - continued											
VA24B4595-001	WLNG EOP	Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Total Metals (QC Lot: 1508072)											
VA24B4595-001	WLNG EOP	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1506025)											
VA24B4595-001	WLNG EOP	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0077	0.0073	0.0004	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00086	0.00086	0.000004	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00131	0.00130	1.03%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.00308	0.00306	0.522%	20%	----
		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	0.023	0.024	0.0004	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	0.0000054	0.0000004	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	20.6	20.2	1.81%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	0.000045	0.000045	0.0000001	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	0.00026	0.00026	0.000005	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.015	0.015	0.00002	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	0.0182	0.0176	3.60%	20%	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	2.00	1.99	0.689%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0773	0.0778	0.591%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.00848	0.00871	2.64%	20%	----
		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	10.4	10.0	2.97%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.0154	0.0154	0.0587%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000093	0.000052	0.000041	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	5.51	5.50	0.192%	20%	----
		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	26.9	26.8	0.324%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0917	0.0909	0.891%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	2.16	2.35	0.19	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	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: 1506025) - continued											
VA24B4595-001	W LNG EOP	Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	0.000060	0.000061	0.000001	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.000010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.000010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.000030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.000010	mg/L	0.00021	0.00021	0.000002	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000517	0.000529	2.26%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.000050	mg/L	0.00081	0.00079	0.00002	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0020	0.0018	0.0001	Diff <2x LOR	----
Zirconium, dissolved	7440-67-7	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----		
Dissolved Metals (QC Lot: 1508073)											
VA24B4595-001	W LNG EOP	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Speciated Metals (QC Lot: 1505872)											
VA24B4595-001	W LNG EOP	Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
Aggregate Organics (QC Lot: 1508962)											
CG2408496-002	Anonymous	Phenols, total (4AAP)	----	E562	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Volatile Organic Compounds (QC Lot: 1506281)											
VA24B4595-001	W LNG EOP	Benzene	71-43-2	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Bromodichloromethane	75-27-4	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Bromoform	75-25-2	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Carbon tetrachloride	56-23-5	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chlorobenzene	108-90-7	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chloroethane	75-00-3	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chloroform	67-66-3	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chloromethane	74-87-3	E611C	5.0	µg/L	<5.0	<5.0	0	Diff <2x LOR	----
		Dibromochloromethane	124-48-1	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorobenzene, 1,2-	95-50-1	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorobenzene, 1,3-	541-73-1	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorobenzene, 1,4-	106-46-7	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethane, 1,1-	75-34-3	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethane, 1,2-	107-06-2	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethylene, 1,1-	75-35-4	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethylene, cis-1,2-	156-59-2	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethylene, trans-1,2-	156-60-5	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloromethane	75-09-2	E611C	1.0	µg/L	<1.0	<1.0	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
Volatile Organic Compounds (QC Lot: 1506281) - continued											
VA24B4595-001	W LNG EOP	Dichloropropane, 1,2-	78-87-5	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloropropylene, cis-1,3-	10061-01-5	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloropropylene, trans-1,3-	10061-02-6	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Ethylbenzene	100-41-4	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Styrene	100-42-5	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethane, 1,1,1,2-	630-20-6	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethane, 1,1,2,2-	79-34-5	E611C	0.20	µg/L	<0.20	<0.20	0	Diff <2x LOR	----
		Tetrachloroethylene	127-18-4	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Toluene	108-88-3	E611C	0.40	µg/L	<0.40	<0.40	0	Diff <2x LOR	----
		Trichloroethane, 1,1,1-	71-55-6	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichloroethane, 1,1,2-	79-00-5	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichloroethylene	79-01-6	E611C	0.50	µg/L	0.68	0.68	0.007	Diff <2x LOR	----
		Trichlorofluoromethane	75-69-4	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Vinyl chloride	75-01-4	E611C	0.40	µg/L	<0.40	<0.40	0	Diff <2x LOR	----
Xylene, m+p-	179601-23-1	E611C	0.40	µg/L	0.48	0.49	0.009	Diff <2x LOR	----		
Xylene, o-	95-47-6	E611C	0.30	µg/L	<0.30	<0.30	0	Diff <2x LOR	----		
Hydrocarbons (QC Lot: 1506279)											
VA24B4466-001	Anonymous	VHw (C6-C10)	----	E581.VH+F1	100	µg/L	<100	<100	0.0%	30%	----
Glycols (QC Lot: 1506589)											
VA24B4471-003	Anonymous	Diethylene glycol	111-46-6	E680E	5.0	mg/L	<5.0	<5.0	0	Diff <2x LOR	----
		Ethylene glycol	107-21-1	E680E	5.0	mg/L	<5.0	<5.0	0	Diff <2x LOR	----
		Propylene glycol, 1,2-	57-55-6	E680E	5.0	mg/L	<5.0	<5.0	0	Diff <2x LOR	----
		Triethylene glycol	112-27-6	E680E	5.0	mg/L	<5.0	<5.0	0	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: 1505830)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1505946)						
Solids, total dissolved [TDS]	----	E162	10	mg/L	<10	----
Physical Tests (QCLot: 1505948)						
Solids, total suspended [TSS]	----	E160	3	mg/L	<3.0	----
Anions and Nutrients (QCLot: 1505792)						
Nitrogen, total	7727-37-9	E366	0.03	mg/L	<0.030	----
Anions and Nutrients (QCLot: 1505793)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1505794)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1505822)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1505823)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 1505824)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1505825)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1505826)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 1505827)						
Bromide	24959-67-9	E235.Br-L	0.05	mg/L	<0.050	----
Organic / Inorganic Carbon (QCLot: 1505791)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Sulfides (QCLot: 1506366)						
Sulfide, total (as S)	18496-25-8	E395	0.0015	mg/L	<0.0015	----
Total Metals (QCLot: 1506501)						
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	----



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1506501) - continued						
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	----
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	----



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1508072)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1506025)						
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	----
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	----



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1506025) - continued						
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	----
Dissolved Metals (QCLot: 1508073)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Speciated Metals (QCLot: 1505872)						
Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.0005	mg/L	<0.00050	----
Aggregate Organics (QCLot: 1508962)						
Phenols, total (4AAP)	----	E562	0.001	mg/L	<0.0010	----
Volatile Organic Compounds (QCLot: 1506281)						
Benzene	71-43-2	E611C	0.5	µg/L	<0.50	----
Bromodichloromethane	75-27-4	E611C	0.5	µg/L	<0.50	----
Bromoform	75-25-2	E611C	0.5	µg/L	<0.50	----
Carbon tetrachloride	56-23-5	E611C	0.5	µg/L	<0.50	----
Chlorobenzene	108-90-7	E611C	0.5	µg/L	<0.50	----
Chloroethane	75-00-3	E611C	0.5	µg/L	<0.50	----
Chloroform	67-66-3	E611C	0.5	µg/L	<0.50	----
Chloromethane	74-87-3	E611C	5	µg/L	<5.0	----
Dibromochloromethane	124-48-1	E611C	0.5	µg/L	<0.50	----
Dichlorobenzene, 1,2-	95-50-1	E611C	0.5	µg/L	<0.50	----
Dichlorobenzene, 1,3-	541-73-1	E611C	0.5	µg/L	<0.50	----
Dichlorobenzene, 1,4-	106-46-7	E611C	0.5	µg/L	<0.50	----
Dichloroethane, 1,1-	75-34-3	E611C	0.5	µg/L	<0.50	----
Dichloroethane, 1,2-	107-06-2	E611C	0.5	µg/L	<0.50	----
Dichloroethylene, 1,1-	75-35-4	E611C	0.5	µg/L	<0.50	----
Dichloroethylene, cis-1,2-	156-59-2	E611C	0.5	µg/L	<0.50	----
Dichloroethylene, trans-1,2-	156-60-5	E611C	0.5	µg/L	<0.50	----
Dichloromethane	75-09-2	E611C	1	µg/L	<1.0	----
Dichloropropane, 1,2-	78-87-5	E611C	0.5	µg/L	<0.50	----
Dichloropropylene, cis-1,3-	10061-01-5	E611C	0.5	µg/L	<0.50	----
Dichloropropylene, trans-1,3-	10061-02-6	E611C	0.5	µg/L	<0.50	----
Ethylbenzene	100-41-4	E611C	0.5	µg/L	<0.50	----



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Volatile Organic Compounds (QCLot: 1506281) - continued						
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611C	0.5	µg/L	<0.50	----
Styrene	100-42-5	E611C	0.5	µg/L	<0.50	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611C	0.5	µg/L	<0.50	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611C	0.2	µg/L	<0.20	----
Tetrachloroethylene	127-18-4	E611C	0.5	µg/L	<0.50	----
Toluene	108-88-3	E611C	0.4	µg/L	<0.40	----
Trichloroethane, 1,1,1-	71-55-6	E611C	0.5	µg/L	<0.50	----
Trichloroethane, 1,1,2-	79-00-5	E611C	0.5	µg/L	<0.50	----
Trichloroethylene	79-01-6	E611C	0.5	µg/L	<0.50	----
Trichlorofluoromethane	75-69-4	E611C	0.5	µg/L	<0.50	----
Vinyl chloride	75-01-4	E611C	0.4	µg/L	<0.40	----
Xylene, m+p-	179601-23-1	E611C	0.4	µg/L	<0.40	----
Xylene, o-	95-47-6	E611C	0.3	µg/L	<0.30	----
Hydrocarbons (QCLot: 1506032)						
EPH (C10-C19)	----	E601A	250	µg/L	<250	----
EPH (C19-C32)	----	E601A	250	µg/L	<250	----
Hydrocarbons (QCLot: 1506279)						
VHw (C6-C10)	----	E581.VH+F1	100	µg/L	<100	----
Polycyclic Aromatic Hydrocarbons (QCLot: 1506033)						
Acenaphthene	83-32-9	E641A	0.01	µg/L	<0.010	----
Acenaphthylene	208-96-8	E641A	0.01	µg/L	<0.010	----
Acridine	260-94-6	E641A	0.01	µg/L	<0.010	----
Anthracene	120-12-7	E641A	0.01	µg/L	<0.010	----
Benz(a)anthracene	56-55-3	E641A	0.01	µg/L	<0.010	----
Benzo(a)pyrene	50-32-8	E641A	0.005	µg/L	<0.0050	----
Benzo(b+j)fluoranthene	n/a	E641A	0.01	µg/L	<0.010	----
Benzo(g,h,i)perylene	191-24-2	E641A	0.01	µg/L	<0.010	----
Benzo(k)fluoranthene	207-08-9	E641A	0.01	µg/L	<0.010	----
Chrysene	218-01-9	E641A	0.01	µg/L	<0.010	----
Dibenz(a,h)anthracene	53-70-3	E641A	0.005	µg/L	<0.0050	----
Fluoranthene	206-44-0	E641A	0.01	µg/L	<0.010	----
Fluorene	86-73-7	E641A	0.01	µg/L	<0.010	----
Indeno(1,2,3-c,d)pyrene	193-39-5	E641A	0.01	µg/L	<0.010	----
Methylnaphthalene, 1-	90-12-0	E641A	0.01	µg/L	<0.010	----
Methylnaphthalene, 2-	91-57-6	E641A	0.01	µg/L	<0.010	----



Sub-Matrix: **Water**

<i>Analyte</i>	<i>CAS Number</i>	<i>Method</i>	<i>LOR</i>	<i>Unit</i>	<i>Result</i>	<i>Qualifier</i>
Polycyclic Aromatic Hydrocarbons (QCLot: 1506033) - continued						
Naphthalene	91-20-3	E641A	0.05	µg/L	<0.050	----
Phenanthrene	85-01-8	E641A	0.02	µg/L	<0.020	----
Pyrene	129-00-0	E641A	0.01	µg/L	<0.010	----
Quinoline	91-22-5	E641A	0.05	µg/L	<0.050	----
Glycols (QCLot: 1506589)						
Diethylene glycol	111-46-6	E680E	5	mg/L	<5.0	----
Ethylene glycol	107-21-1	E680E	5	mg/L	<5.0	----
Propylene glycol, 1,2-	57-55-6	E680E	5	mg/L	<5.0	----
Triethylene glycol	112-27-6	E680E	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: 1505830)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	500 mg/L	108	85.0	115	----
Physical Tests (QCLot: 1505946)									
Solids, total dissolved [TDS]	----	E162	10	mg/L	1000 mg/L	108	85.0	115	----
Physical Tests (QCLot: 1505948)									
Solids, total suspended [TSS]	----	E160	3	mg/L	150 mg/L	99.3	85.0	115	----
Anions and Nutrients (QCLot: 1505792)									
Nitrogen, total	7727-37-9	E366	0.03	mg/L	0.5 mg/L	99.9	75.0	125	----
Anions and Nutrients (QCLot: 1505793)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.05 mg/L	87.6	80.0	120	----
Anions and Nutrients (QCLot: 1505794)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	95.5	85.0	115	----
Anions and Nutrients (QCLot: 1505822)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 1505823)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 1505824)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1505825)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	99.4	90.0	110	----
Anions and Nutrients (QCLot: 1505826)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	98.5	90.0	110	----
Anions and Nutrients (QCLot: 1505827)									
Bromide	24959-67-9	E235.Br-L	0.05	mg/L	0.5 mg/L	104	85.0	115	----
Organic / Inorganic Carbon (QCLot: 1505791)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	97.4	80.0	120	----
Total Sulfides (QCLot: 1506366)									
Sulfide, total (as S)	18496-25-8	E395	0.0015	mg/L	0.08 mg/L	103	80.0	120	----
Total Metals (QCLot: 1506501)									



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: 1506501) - continued									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	102	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	106	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	95.0	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	104	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	99.5	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	101	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	100	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	100	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	98.9	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	96.6	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	105	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
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	102	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	104	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	104	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	105	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	99.0	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	111	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	92.0	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	114	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	100	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	87.9	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	103	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	105	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	94.2	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	97.6	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	97.8	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	95.8	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	100	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: 1506501) - continued									
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	103	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	97.0	80.0	120	----
Total Metals (QCLot: 1508072)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	99.0	80.0	120	----
Dissolved Metals (QCLot: 1506025)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	95.5	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	99.1	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	98.8	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	96.4	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	92.1	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	97.6	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	97.5	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	94.6	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	96.8	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	95.0	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	92.6	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	93.3	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	94.0	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	96.0	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	97.2	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	97.0	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	96.0	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	93.4	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	99.5	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	92.3	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	95.5	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	96.9	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	92.3	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	100	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	103	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	88.2	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	102	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	95.5	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	88.0	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
Dissolved Metals (QCLot: 1506025) - continued									
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	98.8	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	99.6	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	88.4	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	93.7	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	92.4	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	93.6	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	92.6	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	94.4	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	92.3	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	92.4	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	101	80.0	120	----
Speciated Metals (QCLot: 1505872)									
Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.0005	mg/L	0.25 mg/L	104	80.0	120	----
Aggregate Organics (QCLot: 1508962)									
Phenols, total (4AAP)	----	E562	0.001	mg/L	0.02 mg/L	100	85.0	115	----
Volatile Organic Compounds (QCLot: 1506281)									
Benzene	71-43-2	E611C	0.5	µg/L	100 µg/L	106	70.0	130	----
Bromodichloromethane	75-27-4	E611C	0.5	µg/L	100 µg/L	100	70.0	130	----
Bromoform	75-25-2	E611C	0.5	µg/L	100 µg/L	87.8	70.0	130	----
Carbon tetrachloride	56-23-5	E611C	0.5	µg/L	100 µg/L	110	70.0	130	----
Chlorobenzene	108-90-7	E611C	0.5	µg/L	100 µg/L	102	70.0	130	----
Chloroethane	75-00-3	E611C	0.5	µg/L	100 µg/L	116	60.0	140	----
Chloroform	67-66-3	E611C	0.5	µg/L	100 µg/L	106	70.0	130	----
Chloromethane	74-87-3	E611C	5	µg/L	100 µg/L	128	60.0	140	----
Dibromochloromethane	124-48-1	E611C	0.5	µg/L	100 µg/L	100	70.0	130	----
Dichlorobenzene, 1,2-	95-50-1	E611C	0.5	µg/L	100 µg/L	99.7	70.0	130	----
Dichlorobenzene, 1,3-	541-73-1	E611C	0.5	µg/L	100 µg/L	103	70.0	130	----
Dichlorobenzene, 1,4-	106-46-7	E611C	0.5	µg/L	100 µg/L	105	70.0	130	----
Dichloroethane, 1,1-	75-34-3	E611C	0.5	µg/L	100 µg/L	102	70.0	130	----
Dichloroethane, 1,2-	107-06-2	E611C	0.5	µg/L	100 µg/L	99.7	70.0	130	----
Dichloroethylene, 1,1-	75-35-4	E611C	0.5	µg/L	100 µg/L	101	70.0	130	----
Dichloroethylene, cis-1,2-	156-59-2	E611C	0.5	µg/L	100 µg/L	99.8	70.0	130	----
Dichloroethylene, trans-1,2-	156-60-5	E611C	0.5	µg/L	100 µg/L	102	70.0	130	----



Sub-Matrix: Water

Laboratory Control Sample (LCS) Report

Analyte	CAS Number	Method	LOR	Unit	Spike		Recovery (%)		Recovery Limits (%)		Qualifier
					Target Concentration	LCS	Low	High			
Volatile Organic Compounds (QCLot: 1506281) - continued											
Dichloromethane	75-09-2	E611C	1	µg/L	100 µg/L	104	70.0	130	---		
Dichloropropane, 1,2-	78-87-5	E611C	0.5	µg/L	100 µg/L	103	70.0	130	---		
Dichloropropylene, cis-1,3-	10061-01-5	E611C	0.5	µg/L	100 µg/L	105	70.0	130	---		
Dichloropropylene, trans-1,3-	10061-02-6	E611C	0.5	µg/L	100 µg/L	99.1	70.0	130	---		
Ethylbenzene	100-41-4	E611C	0.5	µg/L	100 µg/L	104	70.0	130	---		
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611C	0.5	µg/L	100 µg/L	106	70.0	130	---		
Styrene	100-42-5	E611C	0.5	µg/L	100 µg/L	106	70.0	130	---		
Tetrachloroethane, 1,1,1,2-	630-20-6	E611C	0.5	µg/L	100 µg/L	102	70.0	130	---		
Tetrachloroethane, 1,1,2,2-	79-34-5	E611C	0.2	µg/L	100 µg/L	90.5	70.0	130	---		
Tetrachloroethylene	127-18-4	E611C	0.5	µg/L	100 µg/L	102	70.0	130	---		
Toluene	108-88-3	E611C	0.4	µg/L	100 µg/L	107	70.0	130	---		
Trichloroethane, 1,1,1-	71-55-6	E611C	0.5	µg/L	100 µg/L	110	70.0	130	---		
Trichloroethane, 1,1,2-	79-00-5	E611C	0.5	µg/L	100 µg/L	95.8	70.0	130	---		
Trichloroethylene	79-01-6	E611C	0.5	µg/L	100 µg/L	106	70.0	130	---		
Trichlorofluoromethane	75-69-4	E611C	0.5	µg/L	100 µg/L	125	60.0	140	---		
Vinyl chloride	75-01-4	E611C	0.4	µg/L	100 µg/L	124	60.0	140	---		
Xylene, m+p-	179601-23-1	E611C	0.4	µg/L	200 µg/L	106	70.0	130	---		
Xylene, o-	95-47-6	E611C	0.3	µg/L	100 µg/L	100	70.0	130	---		
Hydrocarbons (QCLot: 1506032)											
EPH (C10-C19)	---	E601A	250	µg/L	6490 µg/L	117	70.0	130	---		
EPH (C19-C32)	---	E601A	250	µg/L	3360 µg/L	119	70.0	130	---		
Hydrocarbons (QCLot: 1506279)											
VHw (C6-C10)	---	E581.VH+F1	100	µg/L	6310 µg/L	80.5	70.0	130	---		
Polycyclic Aromatic Hydrocarbons (QCLot: 1506033)											
Acenaphthene	83-32-9	E641A	0.01	µg/L	0.5 µg/L	110	60.0	130	---		
Acenaphthylene	208-96-8	E641A	0.01	µg/L	0.5 µg/L	111	60.0	130	---		
Acridine	260-94-6	E641A	0.01	µg/L	0.5 µg/L	102	60.0	130	---		
Anthracene	120-12-7	E641A	0.01	µg/L	0.5 µg/L	105	60.0	130	---		
Benz(a)anthracene	56-55-3	E641A	0.01	µg/L	0.5 µg/L	104	60.0	130	---		
Benzo(a)pyrene	50-32-8	E641A	0.005	µg/L	0.5 µg/L	104	60.0	130	---		
Benzo(b+j)fluoranthene	n/a	E641A	0.01	µg/L	0.5 µg/L	91.4	60.0	130	---		
Benzo(g,h,i)perylene	191-24-2	E641A	0.01	µg/L	0.5 µg/L	87.6	60.0	130	---		
Benzo(k)fluoranthene	207-08-9	E641A	0.01	µg/L	0.5 µg/L	94.2	60.0	130	---		
Chrysene	218-01-9	E641A	0.01	µg/L	0.5 µg/L	114	60.0	130	---		



Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Polycyclic Aromatic Hydrocarbons (QCLot: 1506033) - continued									
Dibenz(a,h)anthracene	53-70-3	E641A	0.005	µg/L	0.5 µg/L	111	60.0	130	----
Fluoranthene	206-44-0	E641A	0.01	µg/L	0.5 µg/L	106	60.0	130	----
Fluorene	86-73-7	E641A	0.01	µg/L	0.5 µg/L	99.5	60.0	130	----
Indeno(1,2,3-c,d)pyrene	193-39-5	E641A	0.01	µg/L	0.5 µg/L	102	60.0	130	----
Methylnaphthalene, 1-	90-12-0	E641A	0.01	µg/L	0.5 µg/L	95.5	60.0	130	----
Methylnaphthalene, 2-	91-57-6	E641A	0.01	µg/L	0.5 µg/L	104	60.0	130	----
Naphthalene	91-20-3	E641A	0.05	µg/L	0.5 µg/L	99.2	50.0	130	----
Phenanthrene	85-01-8	E641A	0.02	µg/L	0.5 µg/L	103	60.0	130	----
Pyrene	129-00-0	E641A	0.01	µg/L	0.5 µg/L	105	60.0	130	----
Quinoline	91-22-5	E641A	0.05	µg/L	0.5 µg/L	105	60.0	130	----
Glycols (QCLot: 1506589)									
Diethylene glycol	111-46-6	E680E	5	mg/L	25 mg/L	99.5	70.0	130	----
Ethylene glycol	107-21-1	E680E	5	mg/L	25 mg/L	98.7	70.0	130	----
Propylene glycol, 1,2-	57-55-6	E680E	5	mg/L	25 mg/L	98.1	70.0	130	----
Triethylene glycol	112-27-6	E680E	5	mg/L	25 mg/L	97.4	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 (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1505822)										
VA24B4595-001	WLNG EOP	Sulfate (as SO4)	14808-79-8	E235.SO4	106 mg/L	100 mg/L	106	75.0	125	----
Anions and Nutrients (QCLot: 1505823)										
VA24B4595-001	WLNG EOP	Chloride	16887-00-6	E235.Cl	107 mg/L	100 mg/L	107	75.0	125	----
Anions and Nutrients (QCLot: 1505824)										
VA24B4595-001	WLNG EOP	Nitrate (as N)	14797-55-8	E235.NO3-L	2.67 mg/L	2.5 mg/L	107	75.0	125	----
Anions and Nutrients (QCLot: 1505825)										
VA24B4595-001	WLNG EOP	Nitrite (as N)	14797-65-0	E235.NO2-L	0.528 mg/L	0.5 mg/L	106	75.0	125	----
Anions and Nutrients (QCLot: 1505826)										
VA24B4595-001	WLNG EOP	Fluoride	16984-48-8	E235.F	1.09 mg/L	1 mg/L	109	75.0	125	----
Total Metals (QCLot: 1508072)										
VA24B4720-001	Anonymous	Mercury, total	7439-97-6	E508	0.000883 mg/L	0.001 mg/L	88.3	70.0	130	----
Speciated Metals (QCLot: 1505872)										
VA24B4607-001	Anonymous	Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.799 mg/L	0.75 mg/L	106	70.0	130	----
Aggregate Organics (QCLot: 1508962)										
CG2408496-003	Anonymous	Phenols, total (4AAP)	----	E562	0.0198 mg/L	0.02 mg/L	99.0	75.0	125	----
Volatile Organic Compounds (QCLot: 1506281)										
VA24B4595-001	WLNG EOP	Benzene	71-43-2	E611C	94.3 µg/L	100 µg/L	94.3	60.0	140	----
		Bromodichloromethane	75-27-4	E611C	92.9 µg/L	100 µg/L	92.9	60.0	140	----
		Bromoform	75-25-2	E611C	83.1 µg/L	100 µg/L	83.1	60.0	140	----
		Carbon tetrachloride	56-23-5	E611C	95.0 µg/L	100 µg/L	95.0	60.0	140	----
		Chlorobenzene	108-90-7	E611C	90.9 µg/L	100 µg/L	90.9	60.0	140	----
		Chloroethane	75-00-3	E611C	94.8 µg/L	100 µg/L	94.8	50.0	150	----
		Chloroform	67-66-3	E611C	95.3 µg/L	100 µg/L	95.3	60.0	140	----
		Chloromethane	74-87-3	E611C	98.5 µg/L	100 µg/L	98.5	50.0	150	----
		Dibromochloromethane	124-48-1	E611C	92.2 µg/L	100 µg/L	92.2	60.0	140	----
		Dichlorobenzene, 1,2-	95-50-1	E611C	88.7 µg/L	100 µg/L	88.7	60.0	140	----
		Dichlorobenzene, 1,3-	541-73-1	E611C	92.9 µg/L	100 µg/L	92.9	60.0	140	----
		Dichlorobenzene, 1,4-	106-46-7	E611C	96.2 µg/L	100 µg/L	96.2	60.0	140	----
		Dichloroethane, 1,1-	75-34-3	E611C	90.0 µg/L	100 µg/L	90.0	60.0	140	----
		Dichloroethane, 1,2-	107-06-2	E611C	95.2 µg/L	100 µg/L	95.2	60.0	140	----
		Dichloroethylene, 1,1-	75-35-4	E611C	84.6 µg/L	100 µg/L	84.6	60.0	140	----
		Dichloroethylene, cis-1,2-	156-59-2	E611C	89.3 µg/L	100 µg/L	89.3	60.0	140	----
		Dichloroethylene, trans-1,2-	156-60-5	E611C	89.0 µg/L	100 µg/L	89.0	60.0	140	----
		Dichloromethane	75-09-2	E611C	94.8 µg/L	100 µg/L	94.8	60.0	140	----
		Dichloropropane, 1,2-	78-87-5	E611C	93.9 µg/L	100 µg/L	93.9	60.0	140	----



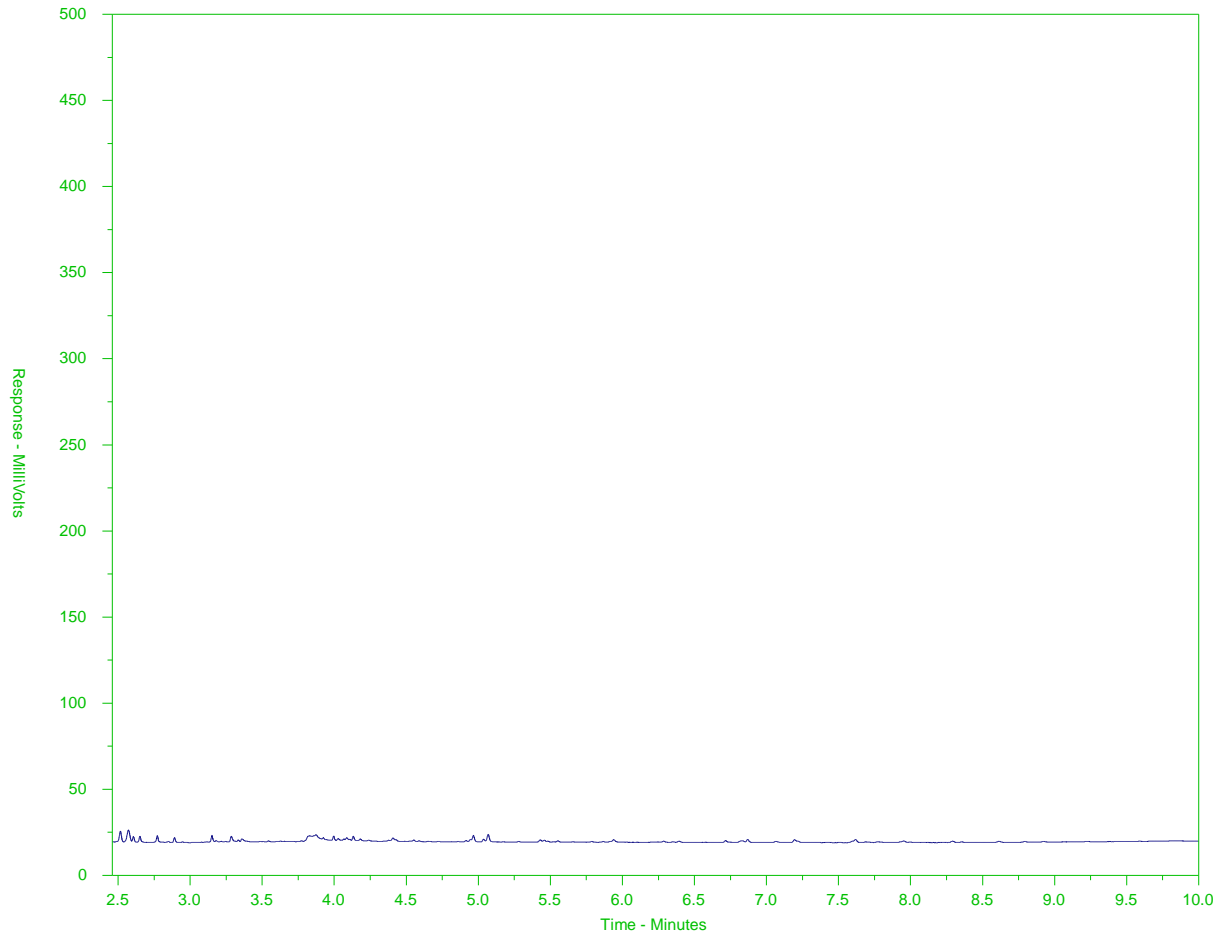
Sub-Matrix: **Water**

					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: 1506281) - continued										
VA24B4595-001	WLNG EOP	Dichloropropylene, cis-1,3-	10061-01-5	E611C	96.7 µg/L	100 µg/L	96.7	60.0	140	----
		Dichloropropylene, trans-1,3-	10061-02-6	E611C	89.5 µg/L	100 µg/L	89.5	60.0	140	----
		Ethylbenzene	100-41-4	E611C	86.8 µg/L	100 µg/L	86.8	60.0	140	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611C	95.9 µg/L	100 µg/L	95.9	60.0	140	----
		Styrene	100-42-5	E611C	93.1 µg/L	100 µg/L	93.1	60.0	140	----
		Tetrachloroethane, 1,1,1,2-	630-20-6	E611C	90.5 µg/L	100 µg/L	90.5	60.0	140	----
		Tetrachloroethane, 1,1,2,2-	79-34-5	E611C	83.6 µg/L	100 µg/L	83.6	60.0	140	----
		Tetrachloroethylene	127-18-4	E611C	87.0 µg/L	100 µg/L	87.0	60.0	140	----
		Toluene	108-88-3	E611C	90.8 µg/L	100 µg/L	90.8	60.0	140	----
		Trichloroethane, 1,1,1-	71-55-6	E611C	94.5 µg/L	100 µg/L	94.5	60.0	140	----
		Trichloroethane, 1,1,2-	79-00-5	E611C	88.0 µg/L	100 µg/L	88.0	60.0	140	----
		Trichloroethylene	79-01-6	E611C	93.3 µg/L	100 µg/L	93.3	60.0	140	----
		Trichlorofluoromethane	75-69-4	E611C	104 µg/L	100 µg/L	104	50.0	150	----
		Vinyl chloride	75-01-4	E611C	95.0 µg/L	100 µg/L	95.0	50.0	150	----
		Xylene, m+p-	179601-23-1	E611C	183 µg/L	200 µg/L	91.5	60.0	140	----
		Xylene, o-	95-47-6	E611C	86.3 µg/L	100 µg/L	86.3	60.0	140	----
Hydrocarbons (QCLot: 1506279)										
VA24B4466-001	Anonymous	VHw (C6-C10)	----	E581.VH+F1	4940 µg/L	6310 µg/L	78.4	60.0	140	----

BC EPH HYDROCARBON DISTRIBUTION REPORT



ALS Sample ID: VA24B4595-001-E601A
Client Sample ID: WLNG EOP



EPH10-19		EPH19-32	
nC10	nC19		nC32
174°C	330°C		467°C
346°F	626°F		873°F
Gasoline		Motor Oils/ Lube Oils/ Grease	
Diesel/ Jet Fuels			

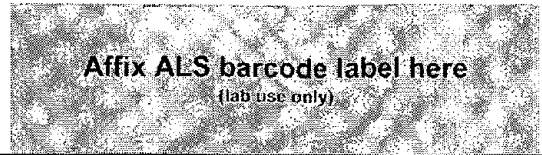
The BC EPH Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and three n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

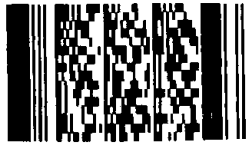
A "-L-" in the sample ID denotes a low level sample. A "-S-" denotes a silica gel cleaned sample.

Note: This chromatogram was produced using GC conditions that are specific to the ALS Canada EPH method. Refer to the ALS Canada EPH Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.



Report To Contact and company name below will appear on the final report		Report Format / Distribution			Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)																	
Company: Triton Environmental		Select Report Format: <input type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input type="checkbox"/> EDD (DIGITAL)			Regular [R] <input type="checkbox"/> Standard TAT if received by 3 pm - business days - no surcharges apply																	
Contact: [Redacted]		Quality Control (QC) Report with Report <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			PRIORITY (Business Days)		EMERGENCY															
Phone: [Redacted]		<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked			4 day [P4-20%] <input type="checkbox"/>		1 Business day [E1 - 100%] <input checked="" type="checkbox"/>															
Street: [Redacted]		Select Distribution: <input type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX			3 day [P3-25%] <input type="checkbox"/>		Same Day, Weekend or Statutory holiday [E2 - 200% (Laboratory opening fees may apply)] <input type="checkbox"/>															
City/Province: [Redacted]		Email 1 or Fax [Redacted]			2 day [P2-50%] <input type="checkbox"/>		Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm															
Postal Code: [Redacted]		Email 2 [Redacted]			For tests that can not be performed according to the service level selected, you will be contacted.																	
Email 3 [Redacted]		Analysis Request																				
Invoice To		Invoice Distribution			Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below																	
Same as Report To <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		Select Invoice Distribution: <input type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input checked="" type="checkbox"/> FAX																				
Copy of Invoice with Report <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		Email 1 or Fax [Redacted]																				
Company: [Redacted]		Email 2 [Redacted]																				
Contact: [Redacted]		Email 3 [Redacted]																				
Project Information				Oil and Gas Required Fields (client use)																		
ALS Account # / Quote #: VA23-TRIT100-012				AFE/Cost Center:		PO#																
Job #: 11964				Major/Minor Code:		Routing Code:																
PO / AFE: 11964 - Task 30 - Phase 3C-4C				Requisitioner:																		
LSD:				Location:																		
ALS Lab Work Order # (lab use only): B4595				ALS Contact: [Redacted]		Sampler:																
ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)			Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Total metals + mercury	Dissolved metals + mercury	Total hexavalent chromium	Total trivalent chromium	TSS, TDS, T-Alkalinity Anions scan (Br, Cl, F, Sulfate)	Total sulfide (low) (as H2S)	Un-ionized Sulfide (low)	Nutrients (ammonia, ammonium, total nitrogen, total phosphorus, phenols)	VOC/MPH	EPH, PAH, LEPI/HEPH	DOC	Glycols	General parameters (alkalinity)	SAMPLES ON HOLD	Sample is hazardous (please provide further details)	NUMBER OF CONTAINERS
	BCR-EOP					Water	R	R	R	R	R	R	R	R	R	R	R	R	R			15
	pH: cond: temp:						R	R	R	R	R	R	R	R	R	R	R	R	R	R		
	WLNG EOP			20 Jun 24	12:25	Water	R	R	R	R	R	R	R	R	R	R	R	R	R			15
	pH: 7.42 cond: 260 µS/cm temp: 27.5					Water	R	R	R	R	R	R	R	R	R	R	R	R	R			15
	Duplicate					Water	R	R	R	R	R	R	R	R	R	R	R	R	R			15
	Field Blank						R	R	R	R	R	R	R	R	R	R	R	R	R			15
	Trip-Blank						R	R	R	R	R	R	R	R	R	R	R	R	R			11
Drinking Water (DW) Samples¹ (client use)				Special Instructions / Special Handling																		
Are samples taken from a Regulated DW System?																						
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO																						
Are samples for human consumption/ use?																						
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO																						
SHIPMENT RELEASE (client use)				INITIAL SHIPMENT RECEPTION (lab use only)						FINAL SHIPMENT RECEPTION (lab use only)												
Released: [Redacted]		Time: 13:00		Received by: [Redacted]		Date: [Redacted]		Time: [Redacted]		Received by: [Redacted]		Date: Jun 20		Time: [Redacted]		Received by: [Redacted]		Date: [Redacted]		Time: [Redacted]		

Environmental Division
Vancouver
Work Order Reference
VA24B4595



Telephone : +1 604 253 4188

CERTIFICATE OF ANALYSIS

Work Order : **VA24B4755**
Client : **Triton Environmental Consultants Ltd.**
Contact :
Address :

Telephone :
Project : 11964
PO : 11964 - Task 30 - Phase 3C-4C
C-O-C number : ----
Sampler : ----
Site : Water Analysis
Quote number : VA23-TRIT100-012_V2
No. of samples received : 1
No. of samples analysed : 1

Page : 1 of 10
Laboratory : ALS Environmental - Vancouver
Account Manager :
Address :

Telephone :
Date Samples Received : 21-Jun-2024 17:40
Date Analysis Commenced : 21-Jun-2024
Issue Date : 25-Jun-2024 15:43

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>
	Analyst	Metals, Burnaby, British Columbia
	Team Leader - Metals	Metals, Burnaby, British Columbia
	Lab Assistant	Metals, Burnaby, British Columbia
	Laboratory Analyst	Inorganics, Edmonton, Alberta
	Supervisor - Metals Prep & Mercury	Metals, Burnaby, British Columbia
	Supervisor - Organics Instrumentation	Organics, Burnaby, British Columbia
	Account Manager Assistant	Administration, Burnaby, British Columbia
	Department Manager - Metals	Metals, Burnaby, British Columbia
	Lab Assistant	Inorganics, Burnaby, British Columbia
	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).

<i>Unit</i>	<i>Description</i>
-	no units
°C	degrees celsius
µg/L	micrograms per litre
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
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					Client sample ID	WLNG EOP	---	---	---	---
(Matrix: Water)					Client sampling date / time	21-Jun-2024 09:58	---	---	---	---
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4755-001	-----	-----	-----	-----	
					Result	---	---	---	---	
Field Tests										
Conductivity, field	----	EF001/VA	0.10	µS/cm	285.00	---	---	---	---	
pH, field	----	EF001/VA	0.10	pH units	7.42	---	---	---	---	
Temperature, field	----	EF001/VA	0.10	°C	19.9	---	---	---	---	
Physical Tests										
Hardness (as CaCO3), dissolved	----	EC100/VA	0.60	mg/L	44.3	---	---	---	---	
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/VA	0.60	mg/L	47.1	---	---	---	---	
Solids, total dissolved [TDS]	----	E162/VA	10	mg/L	138	---	---	---	---	
Solids, total suspended [TSS]	----	E160/VA	3.0	mg/L	<3.0	---	---	---	---	
Alkalinity, total (as CaCO3)	----	E290/VA	2.0	mg/L	87.5	---	---	---	---	
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L	0.0786	---	---	---	---	
Bromide	24959-67-9	E235.Br-L/VA	0.050	mg/L	<0.050	---	---	---	---	
Chloride	16887-00-6	E235.Cl/VA	0.50	mg/L	12.3	---	---	---	---	
Fluoride	16984-48-8	E235.F/VA	0.020	mg/L	0.482	---	---	---	---	
Nitrate (as N)	14797-55-8	E235.NO3-L/V A	0.0050	mg/L	<0.0050	---	---	---	---	
Nitrite (as N)	14797-65-0	E235.NO2-L/V A	0.0010	mg/L	<0.0010	---	---	---	---	
Nitrogen, total	7727-37-9	E366/VA	0.030	mg/L	0.898	---	---	---	---	
Phosphorus, total	7723-14-0	E372-U/VA	0.0020	mg/L	0.0390	---	---	---	---	
Sulfate (as SO4)	14808-79-8	E235.SO4/VA	0.30	mg/L	5.19	---	---	---	---	
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/VA	0.50	mg/L	4.78	---	---	---	---	
Total Sulfides										
Sulfide, total (as S)	18496-25-8	E395/VA	0.0015	mg/L	0.0022	---	---	---	---	
Sulfide, un-ionized (as H2S), from total	7783-06-4	EC395/VA	0.0015	mg/L	<0.0015	---	---	---	---	
Sulfide, total (as H2S)	7783-06-4	E395/VA	0.0016	mg/L	0.0023	---	---	---	---	
Total Metals										
Aluminum, total	7429-90-5	E420/VA	0.0030	mg/L	0.0119	---	---	---	---	
Antimony, total	7440-36-0	E420/VA	0.00010	mg/L	0.00071	---	---	---	---	



Analytical Results

Sub-Matrix: Water					Client sample ID	WLNQ EOP	----	----	----	----
(Matrix: Water)					Client sampling date / time	21-Jun-2024 09:58	---	---	---	---
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4755-001	-----	-----	-----	-----	
					Result	---	---	---	---	
Total Metals										
Arsenic, total	7440-38-2	E420/VA	0.00010	mg/L	0.00129	---	---	---	---	
Barium, total	7440-39-3	E420/VA	0.00010	mg/L	0.00284	---	---	---	---	
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	0.023	---	---	---	---	
Cadmium, total	7440-43-9	E420/VA	0.0000050	mg/L	0.0000079	---	---	---	---	
Calcium, total	7440-70-2	E420/VA	0.050	mg/L	16.2	---	---	---	---	
Cesium, total	7440-46-2	E420/VA	0.000010	mg/L	0.000044	---	---	---	---	
Chromium, total	7440-47-3	E420/VA	0.00050	mg/L	<0.00050	---	---	---	---	
Cobalt, total	7440-48-4	E420/VA	0.00010	mg/L	<0.00010	---	---	---	---	
Copper, total	7440-50-8	E420/VA	0.00050	mg/L	<0.00050	---	---	---	---	
Iron, total	7439-89-6	E420/VA	0.010	mg/L	0.016	---	---	---	---	
Lead, total	7439-92-1	E420/VA	0.000050	mg/L	<0.000050	---	---	---	---	
Lithium, total	7439-93-2	E420/VA	0.0010	mg/L	0.0166	---	---	---	---	
Magnesium, total	7439-95-4	E420/VA	0.0050	mg/L	1.62	---	---	---	---	
Manganese, total	7439-96-5	E420/VA	0.00010	mg/L	0.0591	---	---	---	---	
Mercury, total	7439-97-6	E508/VA	0.0000050	mg/L	<0.0000050	---	---	---	---	
Molybdenum, total	7439-98-7	E420/VA	0.000050	mg/L	0.00756	---	---	---	---	
Nickel, total	7440-02-0	E420/VA	0.00050	mg/L	<0.00050	---	---	---	---	
Phosphorus, total	7723-14-0	E420/VA	0.050	mg/L	<0.050	---	---	---	---	
Potassium, total	7440-09-7	E420/VA	0.050	mg/L	9.15	---	---	---	---	
Rubidium, total	7440-17-7	E420/VA	0.00020	mg/L	0.0154	---	---	---	---	
Selenium, total	7782-49-2	E420/VA	0.000050	mg/L	0.000076	---	---	---	---	
Silicon, total	7440-21-3	E420/VA	0.10	mg/L	4.94	---	---	---	---	
Silver, total	7440-22-4	E420/VA	0.000010	mg/L	<0.000010	---	---	---	---	
Sodium, total	7440-23-5	E420/VA	0.050	mg/L	24.4	---	---	---	---	
Strontium, total	7440-24-6	E420/VA	0.00020	mg/L	0.0732	---	---	---	---	
Sulfur, total	7704-34-9	E420/VA	0.50	mg/L	2.11	---	---	---	---	
Tellurium, total	13494-80-9	E420/VA	0.00020	mg/L	<0.00020	---	---	---	---	
Thallium, total	7440-28-0	E420/VA	0.000010	mg/L	0.000051	---	---	---	---	



Analytical Results

Sub-Matrix: Water					Client sample ID	WLNQ EOP	----	----	----	----
(Matrix: Water)					Client sampling date / time	21-Jun-2024 09:58	---	---	---	---
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4755-001	-----	-----	-----	-----	
					Result	---	---	---	---	
Total Metals										
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	<0.00030	---	---	---	---	
Tungsten, total	7440-33-7	E420/VA	0.00010	mg/L	0.00019	---	---	---	---	
Uranium, total	7440-61-1	E420/VA	0.000010	mg/L	0.000344	---	---	---	---	
Vanadium, total	7440-62-2	E420/VA	0.00050	mg/L	0.00102	---	---	---	---	
Zinc, total	7440-66-6	E420/VA	0.0030	mg/L	<0.0030	---	---	---	---	
Zirconium, total	7440-67-7	E420/VA	0.00020	mg/L	<0.00020	---	---	---	---	
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/VA	0.0010	mg/L	0.0085	---	---	---	---	
Antimony, dissolved	7440-36-0	E421/VA	0.00010	mg/L	0.00068	---	---	---	---	
Arsenic, dissolved	7440-38-2	E421/VA	0.00010	mg/L	0.00116	---	---	---	---	
Barium, dissolved	7440-39-3	E421/VA	0.00010	mg/L	0.00273	---	---	---	---	
Beryllium, dissolved	7440-41-7	E421/VA	0.000100	mg/L	<0.000100	---	---	---	---	
Bismuth, dissolved	7440-69-9	E421/VA	0.000050	mg/L	<0.000050	---	---	---	---	
Boron, dissolved	7440-42-8	E421/VA	0.010	mg/L	0.019	---	---	---	---	
Cadmium, dissolved	7440-43-9	E421/VA	0.0000050	mg/L	<0.0000050	---	---	---	---	
Calcium, dissolved	7440-70-2	E421/VA	0.050	mg/L	15.2	---	---	---	---	
Cesium, dissolved	7440-46-2	E421/VA	0.000010	mg/L	0.000044	---	---	---	---	
Chromium, dissolved	7440-47-3	E421/VA	0.00050	mg/L	<0.00050	---	---	---	---	
Cobalt, dissolved	7440-48-4	E421/VA	0.00010	mg/L	<0.00010	---	---	---	---	
Copper, dissolved	7440-50-8	E421/VA	0.00020	mg/L	0.00029	---	---	---	---	
Iron, dissolved	7439-89-6	E421/VA	0.010	mg/L	<0.010	---	---	---	---	
Lead, dissolved	7439-92-1	E421/VA	0.000050	mg/L	<0.000050	---	---	---	---	
Lithium, dissolved	7439-93-2	E421/VA	0.0010	mg/L	0.0160	---	---	---	---	
Magnesium, dissolved	7439-95-4	E421/VA	0.0050	mg/L	1.54	---	---	---	---	
Manganese, dissolved	7439-96-5	E421/VA	0.00010	mg/L	0.0558	---	---	---	---	
Mercury, dissolved	7439-97-6	E509/VA	0.0000050	mg/L	<0.0000050	---	---	---	---	
Molybdenum, dissolved	7439-98-7	E421/VA	0.000050	mg/L	0.00712	---	---	---	---	
Nickel, dissolved	7440-02-0	E421/VA	0.00050	mg/L	<0.00050	---	---	---	---	



Analytical Results

Sub-Matrix: Water					Client sample ID	WLNQ EOP	----	----	----	----
(Matrix: Water)					Client sampling date / time	21-Jun-2024 09:58	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4755-001	-----	-----	-----	-----	
					Result	---	---	---	---	
Dissolved Metals										
Phosphorus, dissolved	7723-14-0	E421/VA	0.050	mg/L	<0.050	---	---	---	---	
Potassium, dissolved	7440-09-7	E421/VA	0.050	mg/L	8.73	---	---	---	---	
Rubidium, dissolved	7440-17-7	E421/VA	0.00020	mg/L	0.0143	---	---	---	---	
Selenium, dissolved	7782-49-2	E421/VA	0.000050	mg/L	<0.000050	---	---	---	---	
Silicon, dissolved	7440-21-3	E421/VA	0.050	mg/L	4.94	---	---	---	---	
Silver, dissolved	7440-22-4	E421/VA	0.000010	mg/L	<0.000010	---	---	---	---	
Sodium, dissolved	7440-23-5	E421/VA	0.050	mg/L	23.4	---	---	---	---	
Strontium, dissolved	7440-24-6	E421/VA	0.00020	mg/L	0.0690	---	---	---	---	
Sulfur, dissolved	7704-34-9	E421/VA	0.50	mg/L	1.82	---	---	---	---	
Tellurium, dissolved	13494-80-9	E421/VA	0.00020	mg/L	<0.00020	---	---	---	---	
Thallium, dissolved	7440-28-0	E421/VA	0.000010	mg/L	0.000052	---	---	---	---	
Thorium, dissolved	7440-29-1	E421/VA	0.00010	mg/L	<0.00010	---	---	---	---	
Tin, dissolved	7440-31-5	E421/VA	0.00010	mg/L	<0.00010	---	---	---	---	
Titanium, dissolved	7440-32-6	E421/VA	0.00030	mg/L	<0.00030	---	---	---	---	
Tungsten, dissolved	7440-33-7	E421/VA	0.00010	mg/L	0.00018	---	---	---	---	
Uranium, dissolved	7440-61-1	E421/VA	0.000010	mg/L	0.000315	---	---	---	---	
Vanadium, dissolved	7440-62-2	E421/VA	0.00050	mg/L	0.00094	---	---	---	---	
Zinc, dissolved	7440-66-6	E421/VA	0.0010	mg/L	<0.0010	---	---	---	---	
Zirconium, dissolved	7440-67-7	E421/VA	0.00020	mg/L	<0.00020	---	---	---	---	
Dissolved mercury filtration location	----	EP509/VA	-	-	Field	---	---	---	---	
Dissolved metals filtration location	----	EP421/VA	-	-	Field	---	---	---	---	
Speciated Metals										
Chromium, hexavalent [Cr VI], total	18540-29-9	E532/VA	0.00050	mg/L	<0.00050	---	---	---	---	
Chromium, trivalent [Cr III], total	16065-83-1	EC535/VA	0.00050	mg/L	<0.00050	---	---	---	---	
Aggregate Organics										
Phenols, total (4AAP)	----	E562/EO	0.0010	mg/L	<0.0010	---	---	---	---	
Volatile Organic Compounds										
Chlorobenzene	108-90-7	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Chloromethane	74-87-3	E611C/VA	5.0	µg/L	<5.0	---	---	---	---	
Dichlorobenzene, 1,2-	95-50-1	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	



Analytical Results

Sub-Matrix: Water					Client sample ID	W LNG EOP	----	----	----	----
(Matrix: Water)					Client sampling date / time	21-Jun-2024 09:58	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4755-001	-----	-----	-----	-----	
					Result	---	---	---	---	
Volatile Organic Compounds										
Dichlorobenzene, 1,3-	541-73-1	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dichlorobenzene, 1,4-	106-46-7	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dichloropropane, 1,2-	78-87-5	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dichloropropylene, cis+trans-1,3-	542-75-6	E611C/VA	0.75	µg/L	<0.75	---	---	---	---	
Dichloropropylene, cis-1,3-	10061-01-5	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Tetrachloroethane, 1,1,1,2-	630-20-6	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Tetrachloroethane, 1,1,2,2-	79-34-5	E611C/VA	0.20	µg/L	<0.20	---	---	---	---	
Trichloroethane, 1,1,2-	79-00-5	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Trichlorofluoromethane	75-69-4	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Volatile Organic Compounds [Drycleaning]										
Carbon tetrachloride	56-23-5	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Chloroethane	75-00-3	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dichloroethane, 1,1-	75-34-3	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dichloroethane, 1,2-	107-06-2	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dichloroethylene, 1,1-	75-35-4	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dichloroethylene, cis-1,2-	156-59-2	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dichloroethylene, trans-1,2-	156-60-5	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dichloromethane	75-09-2	E611C/VA	1.0	µg/L	<1.0	---	---	---	---	
Dichloropropylene, trans-1,3-	10061-02-6	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Tetrachloroethylene	127-18-4	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Trichloroethane, 1,1,1-	71-55-6	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Trichloroethylene	79-01-6	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Vinyl chloride	75-01-4	E611C/VA	0.40	µg/L	<0.40	---	---	---	---	
Volatile Organic Compounds [Fuels]										
Benzene	71-43-2	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Ethylbenzene	100-41-4	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Styrene	100-42-5	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Toluene	108-88-3	E611C/VA	0.40	µg/L	<0.40	---	---	---	---	
Xylene, m+p-	179601-23-1	E611C/VA	0.40	µg/L	0.46	---	---	---	---	



Analytical Results

Sub-Matrix: Water					Client sample ID	WLNQ EOP	----	----	----	----
(Matrix: Water)					Client sampling date / time	21-Jun-2024 09:58	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4755-001	-----	-----	-----	-----	
Result						----	----	----	----	
Volatile Organic Compounds [Fuels]										
Xylene, o-	95-47-6	E611C/VA	0.30	µg/L	<0.30	----	----	----	----	
Xylenes, total	1330-20-7	E611C/VA	0.50	µg/L	<0.50	----	----	----	----	
Volatile Organic Compounds [THMs]										
Bromodichloromethane	75-27-4	E611C/VA	0.50	µg/L	<0.50	----	----	----	----	
Bromoform	75-25-2	E611C/VA	0.50	µg/L	<0.50	----	----	----	----	
Chloroform	67-66-3	E611C/VA	0.50	µg/L	<0.50	----	----	----	----	
Dibromochloromethane	124-48-1	E611C/VA	0.50	µg/L	<0.50	----	----	----	----	
Hydrocarbons										
EPH (C10-C19)	----	E601A/VA	250	µg/L	<250	----	----	----	----	
EPH (C19-C32)	----	E601A/VA	250	µg/L	<250	----	----	----	----	
VHw (C6-C10)	----	E581.VH+F1/ VA	100	µg/L	<100	----	----	----	----	
HEPHw	----	EC600A/VA	250	µg/L	<250	----	----	----	----	
LEPHw	----	EC600A/VA	250	µg/L	<250	----	----	----	----	
VPHw	----	EC580A/VA	100	µg/L	<100	----	----	----	----	
Hydrocarbons Surrogates										
Bromobenzotrifluoride, 2- (EPH surrogate)	392-83-6	E601A/VA	1.0	%	93.1	----	----	----	----	
Dichlorotoluene, 3,4-	95-75-0	E581.VH+F1/ VA	1.0	%	98.3	----	----	----	----	
Volatile Organic Compounds Surrogates										
Bromofluorobenzene, 4-	460-00-4	E611C/VA	1.0	%	83.5	----	----	----	----	
Difluorobenzene, 1,4-	540-36-3	E611C/VA	1.0	%	100	----	----	----	----	
Polycyclic Aromatic Hydrocarbons										
Acenaphthene	83-32-9	E641A/VA	0.010	µg/L	<0.010	----	----	----	----	
Acenaphthylene	208-96-8	E641A/VA	0.010	µg/L	<0.010	----	----	----	----	
Acridine	260-94-6	E641A/VA	0.010	µg/L	<0.010	----	----	----	----	
Anthracene	120-12-7	E641A/VA	0.010	µg/L	<0.010	----	----	----	----	
Benz(a)anthracene	56-55-3	E641A/VA	0.010	µg/L	<0.010	----	----	----	----	
Benzo(a)pyrene	50-32-8	E641A/VA	0.0050	µg/L	<0.0050	----	----	----	----	
Benzo(b+)fluoranthene	n/a	E641A/VA	0.010	µg/L	<0.010	----	----	----	----	



Analytical Results

Sub-Matrix: Water					Client sample ID	WLNQ EOP	----	----	----	----
(Matrix: Water)					Client sampling date / time	21-Jun-2024 09:58	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4755-001	-----	-----	-----	-----	
					Result	---	---	---	---	
Polycyclic Aromatic Hydrocarbons										
Benzo(b+j+k)fluoranthene	n/a	E641A/VA	0.015	µg/L	<0.015	---	---	---	---	
Benzo(g,h,i)perylene	191-24-2	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Benzo(k)fluoranthene	207-08-9	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Chrysene	218-01-9	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Dibenz(a,h)anthracene	53-70-3	E641A/VA	0.0050	µg/L	<0.0050	---	---	---	---	
Fluoranthene	206-44-0	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Fluorene	86-73-7	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Indeno(1,2,3-c,d)pyrene	193-39-5	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Methylnaphthalene, 1-	90-12-0	E641A/VA	0.010	µg/L	0.011	---	---	---	---	
Methylnaphthalene, 2-	91-57-6	E641A/VA	0.010	µg/L	0.013	---	---	---	---	
Naphthalene	91-20-3	E641A/VA	0.050	µg/L	0.090	---	---	---	---	
Phenanthrene	85-01-8	E641A/VA	0.020	µg/L	<0.020	---	---	---	---	
Pyrene	129-00-0	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Quinoline	91-22-5	E641A/VA	0.050	µg/L	<0.050	---	---	---	---	
Polycyclic Aromatic Hydrocarbons Surrogates										
Chrysene-d12	1719-03-5	E641A/VA	0.1	%	110	---	---	---	---	
Naphthalene-d8	1146-65-2	E641A/VA	0.1	%	97.3	---	---	---	---	
Phenanthrene-d10	1517-22-2	E641A/VA	0.1	%	100	---	---	---	---	
Glycols										
Diethylene glycol	111-46-6	E680E/VA	5.0	mg/L	<5.0	---	---	---	---	
Ethylene glycol	107-21-1	E680E/VA	5.0	mg/L	<5.0	---	---	---	---	
Propylene glycol, 1,2-	57-55-6	E680E/VA	5.0	mg/L	<5.0	---	---	---	---	
Triethylene glycol	112-27-6	E680E/VA	5.0	mg/L	<5.0	---	---	---	---	
Glycols, total (EG+DEG+PG)	----	E680E/VA	10	mg/L	<10	---	---	---	---	
Glycols Surrogates										
Propanediol, 1,3-	504-63-2	E680E/VA	1.0	%	109	---	---	---	---	

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

<p>Work Order : VA24B4755</p> <p>Client : Triton Environmental Consultants Ltd.</p> <p>Contact : [REDACTED]</p> <p>Address : [REDACTED]</p> <p>Telephone : [REDACTED]</p> <p>Project : 11964</p> <p>PO : 11964 - Task 30 - Phase 3C-4C</p> <p>C-O-C number : ----</p> <p>Sampler : ----</p> <p>Site : Water Analysis</p> <p>Quote number : VA23-TRIT100-012_V2</p> <p>No. of samples received : 1</p> <p>No. of samples analysed : 1</p>	<p>Page : 1 of 14</p> <p>Laboratory : ALS Environmental - Vancouver</p> <p>Account Manager : [REDACTED]</p> <p>Address : [REDACTED]</p> <p>Telephone : [REDACTED]</p> <p>Date Samples Received : 21-Jun-2024 17:40</p> <p>Issue Date : 25-Jun-2024 15:43</p>
---	---

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)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.



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 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	
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) WLNG EOP	E562	21-Jun-2024	25-Jun-2024	28 days	4 days	✔	25-Jun-2024	28 days	4 days	✔
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) WLNG EOP	E298	21-Jun-2024	22-Jun-2024	28 days	1 days	✔	22-Jun-2024	28 days	1 days	✔
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE WLNG EOP	E235.Br-L	21-Jun-2024	23-Jun-2024	28 days	2 days	✔	23-Jun-2024	28 days	2 days	✔
Anions and Nutrients : Chloride in Water by IC										
HDPE WLNG EOP	E235.Cl	21-Jun-2024	23-Jun-2024	28 days	2 days	✔	23-Jun-2024	28 days	2 days	✔
Anions and Nutrients : Fluoride in Water by IC										
HDPE WLNG EOP	E235.F	21-Jun-2024	23-Jun-2024	28 days	2 days	✔	23-Jun-2024	28 days	2 days	✔
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE WLNG EOP	E235.NO3-L	21-Jun-2024	23-Jun-2024	3 days	2 days	✔	23-Jun-2024	3 days	2 days	✔
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE WLNG EOP	E235.NO2-L	21-Jun-2024	23-Jun-2024	3 days	2 days	✔	23-Jun-2024	3 days	2 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	
Anions and Nutrients : Sulfate in Water by IC										
HDPE WLNG EOP	E235.SO4	21-Jun-2024	23-Jun-2024	28 days	2 days	✔	23-Jun-2024	28 days	2 days	✔
Anions and Nutrients : Total Nitrogen by Colourimetry										
Amber glass total (sulfuric acid) WLNG EOP	E366	21-Jun-2024	22-Jun-2024	28 days	1 days	✔	24-Jun-2024	28 days	3 days	✔
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) WLNG EOP	E372-U	21-Jun-2024	22-Jun-2024	28 days	1 days	✔	24-Jun-2024	28 days	3 days	✔
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial - dissolved (lab preserved) WLNG EOP	E509	21-Jun-2024	23-Jun-2024	28 days	2 days	✔	23-Jun-2024	28 days	2 days	✔
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) WLNG EOP	E421	21-Jun-2024	23-Jun-2024	180 days	2 days	✔	24-Jun-2024	180 days	3 days	✔
Field Tests : Field pH,EC,Salinity, TDS, Cl2,CIO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial - total (lab preserved) WLNG EOP	EF001	21-Jun-2024	----	----	----		24-Jun-2024	----	3 days	
Glycols : Glycols (4 analytes) by GC-FID										
Glass vial WLNG EOP	E680E	21-Jun-2024	24-Jun-2024	7 days	3 days	✔	24-Jun-2024	40 days	0 days	✔
Hydrocarbons : BC PHCs - EPH by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate) WLNG EOP	E601A	21-Jun-2024	22-Jun-2024	14 days	1 days	✔	22-Jun-2024	40 days	0 days	✔
Hydrocarbons : VH and F1 by Headspace GC-FID										
Glass vial (sodium bisulfate) WLNG EOP	E581.VH+F1	21-Jun-2024	21-Jun-2024	14 days	0 days	✔	21-Jun-2024	14 days	1 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	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) WLNG EOP	E358-L	21-Jun-2024	22-Jun-2024	28 days	1 days	✔	22-Jun-2024	28 days	1 days	✔
Physical Tests : Alkalinity Species by Titration										
HDPE WLNG EOP	E290	21-Jun-2024	23-Jun-2024	14 days	2 days	✔	23-Jun-2024	14 days	2 days	✔
Physical Tests : TDS by Gravimetry										
HDPE WLNG EOP	E162	21-Jun-2024	----	----	----		21-Jun-2024	7 days	1 days	✔
Physical Tests : TSS by Gravimetry										
HDPE WLNG EOP	E160	21-Jun-2024	----	----	----		21-Jun-2024	7 days	1 days	✔
Polycyclic Aromatic Hydrocarbons : PAHs in Water by Hexane LVI GC-MS										
Amber glass/Teflon lined cap (sodium bisulfate) WLNG EOP	E641A	21-Jun-2024	22-Jun-2024	14 days	1 days	✔	22-Jun-2024	40 days	0 days	✔
Speciated Metals : Total Hexavalent Chromium (Cr VI) by IC										
UV-inhibited HDPE - total (sodium hydroxide) WLNG EOP	E532	21-Jun-2024	----	----	----		24-Jun-2024	28 days	3 days	✔
Total Metals : Total Mercury in Water by CVAAS										
Glass vial - total (lab preserved) WLNG EOP	E508	21-Jun-2024	23-Jun-2024	28 days	2 days	✔	23-Jun-2024	28 days	2 days	✔
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) WLNG EOP	E420	21-Jun-2024	23-Jun-2024	180 days	2 days	✔	24-Jun-2024	180 days	3 days	✔
Total Sulfides : Total Sulfide by Colourimetry (Automated Flow)										
HDPE total (zinc acetate+sodium hydroxide) WLNG EOP	E395	21-Jun-2024	----	----	----		22-Jun-2024	7 days	1 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	
Volatile Organic Compounds : VOCs (BC List) by Headspace GC-MS										
Glass vial (sodium bisulfate) WLNG EOP	E611C	21-Jun-2024	21-Jun-2024	14 days	0 days	✔	21-Jun-2024	14 days	1 days	✔

Legend & Qualifier Definitions

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 (%)		
			QC	Regular	Actual	Expected	Evaluation
Analytical Methods							
Laboratory Duplicates (DUP)							
Alkalinity Species by Titration	E290	1509579	1	7	14.2	5.0	✔
Ammonia by Fluorescence	E298	1508716	1	1	100.0	5.0	✔
Bromide in Water by IC (Low Level)	E235.Br-L	1509575	1	6	16.6	5.0	✔
Chloride in Water by IC	E235.Cl	1509572	1	13	7.6	5.0	✔
Dissolved Mercury in Water by CVAAS	E509	1509940	1	1	100.0	5.0	✔
Dissolved Metals in Water by CRC ICPMS	E421	1508509	1	2	50.0	5.0	✔
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1508713	1	1	100.0	5.0	✔
Fluoride in Water by IC	E235.F	1509574	1	6	16.6	5.0	✔
Glycols (4 analytes) by GC-FID	E680E	1510718	1	2	50.0	5.0	✔
Nitrate in Water by IC (Low Level)	E235.NO3-L	1509576	1	4	25.0	5.0	✔
Nitrite in Water by IC (Low Level)	E235.NO2-L	1509577	1	4	25.0	5.0	✔
Phenols (4AAP) in Water by Colorimetry	E562	1512677	1	20	5.0	5.0	✔
Sulfate in Water by IC	E235.SO4	1509573	1	12	8.3	5.0	✔
TDS by Gravimetry	E162	1508258	1	5	20.0	5.0	✔
Total Hexavalent Chromium (Cr VI) by IC	E532	1510772	1	4	25.0	5.0	✔
Total Mercury in Water by CVAAS	E508	1509810	1	20	5.0	5.0	✔
Total Metals in Water by CRC ICPMS	E420	1508324	1	4	25.0	5.0	✔
Total Nitrogen by Colourimetry	E366	1508714	1	1	100.0	5.0	✔
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1508715	1	1	100.0	5.0	✔
Total Sulfide by Colourimetry (Automated Flow)	E395	1508721	1	20	5.0	5.0	✔
TSS by Gravimetry	E160	1508260	1	1	100.0	5.0	✔
VH and F1 by Headspace GC-FID	E581.VH+F1	1508081	1	1	100.0	5.0	✔
VOCs (BC List) by Headspace GC-MS	E611C	1508082	1	1	100.0	5.0	✔
Laboratory Control Samples (LCS)							
Alkalinity Species by Titration	E290	1509579	1	7	14.2	5.0	✔
Ammonia by Fluorescence	E298	1508716	1	1	100.0	5.0	✔
BC PHCs - EPH by GC-FID	E601A	1508256	1	19	5.2	5.0	✔
Bromide in Water by IC (Low Level)	E235.Br-L	1509575	1	6	16.6	5.0	✔
Chloride in Water by IC	E235.Cl	1509572	1	13	7.6	5.0	✔
Dissolved Mercury in Water by CVAAS	E509	1509940	1	1	100.0	5.0	✔
Dissolved Metals in Water by CRC ICPMS	E421	1508509	1	2	50.0	5.0	✔
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1508713	1	1	100.0	5.0	✔
Fluoride in Water by IC	E235.F	1509574	1	6	16.6	5.0	✔
Glycols (4 analytes) by GC-FID	E680E	1510718	1	2	50.0	5.0	✔
Nitrate in Water by IC (Low Level)	E235.NO3-L	1509576	1	4	25.0	5.0	✔
Nitrite in Water by IC (Low Level)	E235.NO2-L	1509577	1	4	25.0	5.0	✔



Matrix: **Water**

Evaluation: * = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
Analytical Methods							
Laboratory Control Samples (LCS) - Continued							
PAHs in Water by Hexane LVI GC-MS	E641A	1508257	1	19	5.2	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	1512677	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1509573	1	12	8.3	5.0	✓
TDS by Gravimetry	E162	1508258	1	5	20.0	5.0	✓
Total Hexavalent Chromium (Cr VI) by IC	E532	1510772	1	4	25.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1509810	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1508324	1	4	25.0	5.0	✓
Total Nitrogen by Colourimetry	E366	1508714	1	1	100.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1508715	1	1	100.0	5.0	✓
Total Sulfide by Colourimetry (Automated Flow)	E395	1508721	1	20	5.0	5.0	✓
TSS by Gravimetry	E160	1508260	1	1	100.0	5.0	✓
VH and F1 by Headspace GC-FID	E581.VH+F1	1508081	1	1	100.0	5.0	✓
VOCs (BC List) by Headspace GC-MS	E611C	1508082	1	1	100.0	5.0	✓
Method Blanks (MB)							
Alkalinity Species by Titration	E290	1509579	1	7	14.2	5.0	✓
Ammonia by Fluorescence	E298	1508716	1	1	100.0	5.0	✓
BC PHCs - EPH by GC-FID	E601A	1508256	1	19	5.2	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	1509575	1	6	16.6	5.0	✓
Chloride in Water by IC	E235.Cl	1509572	1	13	7.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1509940	1	1	100.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1508509	1	2	50.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1508713	1	1	100.0	5.0	✓
Fluoride in Water by IC	E235.F	1509574	1	6	16.6	5.0	✓
Glycols (4 analytes) by GC-FID	E680E	1510718	1	2	50.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1509576	1	4	25.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1509577	1	4	25.0	5.0	✓
PAHs in Water by Hexane LVI GC-MS	E641A	1508257	1	19	5.2	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	1512677	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1509573	1	12	8.3	5.0	✓
TDS by Gravimetry	E162	1508258	1	5	20.0	5.0	✓
Total Hexavalent Chromium (Cr VI) by IC	E532	1510772	1	4	25.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1509810	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1508324	1	4	25.0	5.0	✓
Total Nitrogen by Colourimetry	E366	1508714	1	1	100.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1508715	1	1	100.0	5.0	✓
Total Sulfide by Colourimetry (Automated Flow)	E395	1508721	1	20	5.0	5.0	✓
TSS by Gravimetry	E160	1508260	1	1	100.0	5.0	✓
VH and F1 by Headspace GC-FID	E581.VH+F1	1508081	1	1	100.0	5.0	✓
VOCs (BC List) by Headspace GC-MS	E611C	1508082	1	1	100.0	5.0	✓



Matrix: **Water**

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

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
<i>Analytical Methods</i>							
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1508716	0	1	0.0	5.0	✘
Bromide in Water by IC (Low Level)	E235.Br-L	1509575	1	6	16.6	5.0	✔
Chloride in Water by IC	E235.Cl	1509572	1	13	7.6	5.0	✔
Dissolved Mercury in Water by CVAAS	E509	1509940	0	1	0.0	5.0	✘
Dissolved Metals in Water by CRC ICPMS	E421	1508509	1	2	50.0	5.0	✔
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1508713	0	1	0.0	5.0	✘
Fluoride in Water by IC	E235.F	1509574	1	6	16.6	5.0	✔
Nitrate in Water by IC (Low Level)	E235.NO3-L	1509576	1	4	25.0	5.0	✔
Nitrite in Water by IC (Low Level)	E235.NO2-L	1509577	1	4	25.0	5.0	✔
Phenols (4AAP) in Water by Colorimetry	E562	1512677	1	20	5.0	5.0	✔
Sulfate in Water by IC	E235.SO4	1509573	1	12	8.3	5.0	✔
Total Hexavalent Chromium (Cr VI) by IC	E532	1510772	1	4	25.0	5.0	✔
Total Mercury in Water by CVAAS	E508	1509810	1	20	5.0	5.0	✔
Total Metals in Water by CRC ICPMS	E420	1508324	1	4	25.0	5.0	✔
Total Nitrogen by Colourimetry	E366	1508714	0	1	0.0	5.0	✘
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1508715	0	1	0.0	5.0	✘
Total Sulfide by Colourimetry (Automated Flow)	E395	1508721	1	20	5.0	5.0	✔
VH and F1 by Headspace GC-FID	E581.VH+F1	1508081	0	1	0.0	5.0	✘
VOCs (BC List) by Headspace GC-MS	E611C	1508082	1	1	100.0	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
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.
Bromide in Water by IC (Low Level)	E235.Br-L 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 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 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 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 ALS Environmental - Vancouver	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 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 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.



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
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)
Dissolved Organic Carbon by Combustion (Low Level)	E358-L 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 ₂ . 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 Nitrogen by Colourimetry	E366 ALS Environmental - Vancouver	Water	Chinchilla Scientific Nitrate Method, 2011	Following digestion, total nitrogen is determined colourimetrically using a discrete analyzer utilizing the vanadium chloride reduction method. This method of analysis is approved under US EPA 40 CFR Part 136 (May 2021).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U 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 Sulfide by Colourimetry (Automated Flow)	E395 ALS Environmental - Vancouver	Water	APHA 4500 -S E-Auto-Colorimetry	Sulfide is determined using the gas dialysis automated methylene blue colourimetric method. Results expressed "as H ₂ S" if reported represent the maximum possible H ₂ S concentration based on the total sulfide concentration in the sample. The H ₂ S calculation converts Total Sulphide as (S ₂ ⁻) and reports it as Total Sulphide as (H ₂ S)
Total Metals in Water by CRC ICPMS	E420 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. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Metals in Water by CRC ICPMS	E421 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. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Mercury in Water by CVAAS	E508 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 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.



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Total Hexavalent Chromium (Cr VI) by IC	E532 ALS Environmental - Vancouver	Water	APHA 3500-Cr C (Ion Chromatography)	Hexavalent Chromium is measured by Ion chromatography-Post column reaction and UV detection. Results are based on an un-filtered, field-preserved sample.
Phenols (4AAP) in Water by Colorimetry	E562 ALS Environmental - Edmonton	Water	EPA 9066	This automated method is based on the distillation of phenol and subsequent reaction of the distillate with alkaline ferricyanide (K ₃ Fe(CN) ₆) and 4-amino-antipyrine (4-AAP) to form a red complex which is measured colorimetrically.
VH and F1 by Headspace GC-FID	E581.VH+F1 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. 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 ALS Environmental - Vancouver	Water	BC MOE Lab Manual	Sample extracts are analyzed by GC-FID for BC hydrocarbon fractions.
VOCs (BC List) by Headspace GC-MS	E611C 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. Total Xylenes is the sum of m,p-Xylene & o-Xylene. Total BTEX is the sum of Benzene, Toluene, Ethylbenzene, & Total Xylenes. Total BTEX+Styrene is the sum of Total BTEX & Styrene. Total Trihalomethanes [THMs] is the sum of Bromodichloromethane, Bromoform, Chloroform, & Dibromochloromethane.
PAHs in Water by Hexane LVI GC-MS	E641A ALS Environmental - Vancouver	Water	EPA 8270E (mod)	Polycyclic Aromatic Hydrocarbons (PAHs) are analyzed by large volume injection (LVI) GC-MS.
Glycols (4 analytes) by GC-FID	E680E ALS Environmental - Vancouver	Water	EPA 8015D (mod)	Derivatized glycols are analyzed by GC-FID.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Vancouver	Water	APHA 2340B	"Hardness (as CaCO ₃), dissolved" is calculated from the sum of dissolved 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.



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
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.
Un-ionized Total Hydrogen Sulfide (calculated)	EC395 ALS Environmental - Vancouver	Water	APHA 4500 -S H	Un-ionized sulfide is calculated using results from total sulfide analysis, pH, temperature, and ionic strength of the sample. Calculation of un-ionized sulfide using total sulfide concentrations may be biased high due to particulate forms of sulfide measured during total sulfide testing.
Total Trivalent Chromium (Cr III) by Calculation	EC535 ALS Environmental - Vancouver	Water	APHA 3030B/6020A/EPA 7196A (mod)	Chromium (III)-Total is calculated as the difference between the total chromium and the total hexavalent chromium (Cr(VI)) results. The Limit of Reporting for Chromium (III) varies as a function of the test results.
VPH: VH-BTEX-Styrene	EC580A ALS Environmental - Vancouver	Water	BC MOE Lab Manual (VPH in Water and Solids) (mod)	Volatile Petroleum Hydrocarbons (VPH) is calculated as follows: VPHw = Volatile Hydrocarbons (VH C6-C10) minus benzene, toluene, ethylbenzene, xylenes (BTEX) and styrene.
LEPH and HEPH: EPH-PAH	EC600A ALS Environmental - Vancouver	Water	BC MOE Lab Manual (LEPH and HEPH)	Light Extractable Petroleum Hydrocarbons (LEPH) and Heavy Extractable Petroleum Hydrocarbons (HEPH) are calculated as follows: LEPH = Extractable Petroleum Hydrocarbons (EPH10-19) minus Acenaphthene, Acridine, Anthracene, Fluorene, Naphthalene and Phenanthrene; HEPH = Extractable Petroleum Hydrocarbons (EPH19-32) minus Benz(a)anthracene, Benzo(a)pyrene, Fluoranthene, and Pyrene.
Field pH,EC,Salinity, TDS, Cl ₂ ,ClO ₂ ,ORP,DO, Turbidity,T,T-P,o-PO ₄ ,NH ₃ ,Chloramine	EF001 ALS Environmental - Vancouver	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl ₂ ,ClO ₂ ,ORP,DO, Turbidity,T,T-P,o-PO ₄ ,NH ₃ or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

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.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Vancouver	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Nitrogen in water	EP366 ALS Environmental - Vancouver	Water	APHA 4500-P J (mod)	Samples for total nitrogen analysis are digested using a heated persulfate digestion. Nitrogen compounds are converted to nitrate in this digestion.
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Vancouver	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.



<i>Preparation Methods</i>	<i>Method / Lab</i>	<i>Matrix</i>	<i>Method Reference</i>	<i>Method Descriptions</i>
Dissolved Metals Water Filtration	EP421 ALS Environmental - Vancouver	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Vancouver	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.
VOCs Preparation for Headspace Analysis	EP581 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 the GC/MS-FID system.
PHCs and PAHs Hexane Extraction	EP601 ALS Environmental - Vancouver	Water	EPA 3511 (mod)	Petroleum Hydrocarbons (PHCs) and Polycyclic Aromatic Hydrocarbons (PAHs) are extracted using a hexane liquid-liquid extraction.
Glycols Extraction and Derivatization (BC Only)	EP680E ALS Environmental - Vancouver	Water	EPA 8015D (mod)	Aqueous sample is derivatized and extracted with organic solvent.

QUALITY CONTROL REPORT

Work Order : **VA24B4755**

Client : Triton Environmental Consultants Ltd.

Contact : [REDACTED]

Address : [REDACTED]

Telephone : [REDACTED]

Project : 11964

PO : 11964 - Task 30 - Phase 3C-4C

C-O-C number : ----

Sampler : ----

Site : Water Analysis

Quote number : VA23-TRIT100-012_V2

No. of samples received : 1

No. of samples analysed : 1

Page : 1 of 23

Laboratory : ALS Environmental - Vancouver

Account Manager : [REDACTED]

Address : [REDACTED]

Telephone : [REDACTED]

Date Samples Received : 21-Jun-2024 17:40

Date Analysis Commenced : 21-Jun-2024

Issue Date : 25-Jun-2024 15:43

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
[REDACTED]	Analyst	Vancouver Metals, Burnaby, British Columbia
[REDACTED]	Team Leader - Metals	Vancouver Metals, Burnaby, British Columbia
[REDACTED]	Lab Assistant	Vancouver Metals, Burnaby, British Columbia
[REDACTED]	Laboratory Analyst	Edmonton Inorganics, Edmonton, Alberta
[REDACTED]	Supervisor - Metals Prep & Mercury	Vancouver Metals, Burnaby, British Columbia
[REDACTED]	Supervisor - Organics Instrumentation	Vancouver Organics, Burnaby, British Columbia
[REDACTED]	Account Manager Assistant	Vancouver Administration, Burnaby, British Columbia
[REDACTED]	Department Manager - Metals	Vancouver Metals, Burnaby, British Columbia
[REDACTED]	Lab Assistant	Vancouver Inorganics, Burnaby, British Columbia
[REDACTED]	Supervisor - Water Quality Instrumentation	Vancouver Inorganics, Burnaby, British Columbia



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: 1508258)											
VA24B4615-001	Anonymous	Solids, total dissolved [TDS]	----	E162	20	mg/L	1950	1940	0.359%	20%	----
Physical Tests (QC Lot: 1508260)											
VA24B4755-001	WLNG EOP	Solids, total suspended [TSS]	----	E160	3.0	mg/L	<3.0	<3.0	0	Diff <2x LOR	----
Physical Tests (QC Lot: 1509579)											
VA24B4598-005	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	18.0	17.9	0.557%	20%	----
Anions and Nutrients (QC Lot: 1508714)											
VA24B4755-001	WLNG EOP	Nitrogen, total	7727-37-9	E366	0.030	mg/L	0.898	0.905	0.825%	20%	----
Anions and Nutrients (QC Lot: 1508715)											
VA24B4755-001	WLNG EOP	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0390	0.0385	1.44%	20%	----
Anions and Nutrients (QC Lot: 1508716)											
VA24B4755-001	WLNG EOP	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0786	0.0794	0.960%	20%	----
Anions and Nutrients (QC Lot: 1509572)											
VA24B4755-001	WLNG EOP	Chloride	16887-00-6	E235.Cl	0.50	mg/L	12.3	12.3	0.0665%	20%	----
Anions and Nutrients (QC Lot: 1509573)											
VA24B4755-001	WLNG EOP	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	5.19	5.17	0.413%	20%	----
Anions and Nutrients (QC Lot: 1509574)											
VA24B4755-001	WLNG EOP	Fluoride	16984-48-8	E235.F	0.020	mg/L	0.482	0.482	0.171%	20%	----
Anions and Nutrients (QC Lot: 1509575)											
VA24B4755-001	WLNG EOP	Bromide	24959-67-9	E235.Br-L	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1509576)											
VA24B4755-001	WLNG EOP	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: 1509577)											
VA24B4755-001	WLNG EOP	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1508713)											
VA24B4755-001	WLNG EOP	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	4.78	5.04	0.27	Diff <2x LOR	----
Total Sulfides (QC Lot: 1508721)											
CG2408212-001	Anonymous	Sulfide, total (as S)	18496-25-8	E395	0.0015	mg/L	<0.0015	<0.0015	0	Diff <2x LOR	----
Total Metals (QC Lot: 1508324)											
VA24B4679-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.562	0.561	0.0674%	20%	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00058	0.00058	0.000001	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: 1508324) - continued											
VA24B4679-001	Anonymous	Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00240	0.00233	2.67%	20%	---
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.391	0.392	0.0711%	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	0.059	0.060	0.0010	Diff <2x LOR	---
		Cadmium, total	7440-43-9	E420	0.0000300	mg/L	<0.0000300	<0.0000300	0	Diff <2x LOR	---
		Calcium, total	7440-70-2	E420	0.050	mg/L	10.6	10.8	2.14%	20%	---
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000068	0.000070	0.000002	Diff <2x LOR	---
		Chromium, total	7440-47-3	E420	0.000050	mg/L	0.00187	0.00185	0.00002	Diff <2x LOR	---
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00028	0.00028	0.000003	Diff <2x LOR	---
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00288	0.00284	0.00004	Diff <2x LOR	---
		Iron, total	7439-89-6	E420	0.010	mg/L	0.329	0.326	0.988%	20%	---
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000219	0.000217	0.000002	Diff <2x LOR	---
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0036	0.0036	0.00007	Diff <2x LOR	---
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	1.91	1.90	0.573%	20%	---
		Manganese, total	7439-96-5	E420	0.00010	mg/L	2.60	2.67	2.56%	20%	---
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.0665	0.0666	0.0786%	20%	---
		Nickel, total	7440-02-0	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	---
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	0.120	0.113	0.007	Diff <2x LOR	---
		Potassium, total	7440-09-7	E420	0.050	mg/L	9.78	9.95	1.71%	20%	---
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.0106	0.0105	1.79%	20%	---
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.00140	0.00128	9.08%	20%	---
		Silicon, total	7440-21-3	E420	0.10	mg/L	5.31	5.39	1.64%	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	82.8	81.6	1.42%	20%	---
		Strontium, total	7440-24-6	E420	0.00020	mg/L	1.26	1.27	0.786%	20%	---
		Sulfur, total	7704-34-9	E420	0.50	mg/L	6.15	5.83	5.37%	20%	---
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	0.00022	0.00031	0.00009	Diff <2x LOR	---
		Thallium, total	7440-28-0	E420	0.000010	mg/L	0.000013	0.000012	0.000001	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	0.00032	0.00031	0.000002	Diff <2x LOR	---
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.0150	0.0142	5.21%	20%	---
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	0.0211	0.0206	2.43%	20%	---
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000592	0.000585	1.31%	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 (QC Lot: 1508324) - continued											
VA24B4679-001	Anonymous	Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00497	0.00510	2.53%	20%	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.0080	0.0082	0.0002	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Total Metals (QC Lot: 1509810)											
FJ2401728-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	0.0000054	0.0000004	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1508509)											
VA24B4755-001	WLNG EOP	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0085	0.0080	0.0005	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00068	0.00068	0.000007	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00116	0.00114	1.29%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.00273	0.00270	0.983%	20%	----
		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	0.019	0.020	0.0007	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	0.0000060	0.0000010	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	15.2	15.6	2.65%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	0.000044	0.000044	0.0000008	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	0.00029	0.00029	0.0000006	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	0.0160	0.0165	3.55%	20%	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	1.54	1.54	0.0580%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0558	0.0559	0.160%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.00712	0.00724	1.74%	20%	----
		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	8.73	8.62	1.20%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.0143	0.0143	0.180%	20%	----
		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	4.94	4.75	3.96%	20%	----
		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	23.4	23.6	0.924%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0690	0.0697	0.905%	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
Dissolved Metals (QC Lot: 1508509) - continued											
VA24B4755-001	WLNG EOP	Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	1.82	1.75	0.07	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	0.000052	0.000054	0.000002	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	0.00018	0.00018	0.000008	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000315	0.000314	0.0248%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00094	0.00098	0.00004	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1509940)											
VA24B4755-001	WLNG EOP	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Speciated Metals (QC Lot: 1510772)											
VA24B4755-001	WLNG EOP	Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
Aggregate Organics (QC Lot: 1512677)											
VA24B4755-001	WLNG EOP	Phenols, total (4AAP)	----	E562	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Volatile Organic Compounds (QC Lot: 1508082)											
VA24B4755-001	WLNG EOP	Benzene	71-43-2	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Bromodichloromethane	75-27-4	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Bromoform	75-25-2	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Carbon tetrachloride	56-23-5	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chlorobenzene	108-90-7	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chloroethane	75-00-3	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chloroform	67-66-3	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chloromethane	74-87-3	E611C	5.0	µg/L	<5.0	<5.0	0	Diff <2x LOR	----
		Dibromochloromethane	124-48-1	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorobenzene, 1,2-	95-50-1	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorobenzene, 1,3-	541-73-1	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorobenzene, 1,4-	106-46-7	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethane, 1,1-	75-34-3	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethane, 1,2-	107-06-2	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethylene, 1,1-	75-35-4	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethylene, cis-1,2-	156-59-2	E611C	0.50	µg/L	<0.50	<0.50	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
Volatile Organic Compounds (QC Lot: 1508082) - continued											
VA24B4755-001	WLNQ EOP	Dichloroethylene, trans-1,2-	156-60-5	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloromethane	75-09-2	E611C	1.0	µg/L	<1.0	<1.0	0	Diff <2x LOR	----
		Dichloropropane, 1,2-	78-87-5	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloropropylene, cis-1,3-	10061-01-5	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloropropylene, trans-1,3-	10061-02-6	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Ethylbenzene	100-41-4	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Styrene	100-42-5	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethane, 1,1,1,2-	630-20-6	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethane, 1,1,2,2-	79-34-5	E611C	0.20	µg/L	<0.20	<0.20	0	Diff <2x LOR	----
		Tetrachloroethylene	127-18-4	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Toluene	108-88-3	E611C	0.40	µg/L	<0.40	<0.40	0	Diff <2x LOR	----
		Trichloroethane, 1,1,1-	71-55-6	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichloroethane, 1,1,2-	79-00-5	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichloroethylene	79-01-6	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichlorofluoromethane	75-69-4	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Vinyl chloride	75-01-4	E611C	0.40	µg/L	<0.40	<0.40	0	Diff <2x LOR	----
		Xylene, m+p-	179601-23-1	E611C	0.40	µg/L	0.46	0.45	0.01	Diff <2x LOR	----
Xylene, o-	95-47-6	E611C	0.30	µg/L	<0.30	<0.30	0	Diff <2x LOR	----		
Hydrocarbons (QC Lot: 1508081)											
VA24B4755-001	WLNQ EOP	VHw (C6-C10)	----	E581.VH+F1	100	µg/L	<100	<100	0.0%	30%	----
Glycols (QC Lot: 1510718)											
VA24B4381-001	Anonymous	Diethylene glycol	111-46-6	E680E	5.0	mg/L	<5.0	<5.0	0	Diff <2x LOR	----
		Ethylene glycol	107-21-1	E680E	5.0	mg/L	<5.0	<5.0	0	Diff <2x LOR	----
		Propylene glycol, 1,2-	57-55-6	E680E	5.0	mg/L	<5.0	<5.0	0	Diff <2x LOR	----
		Triethylene glycol	112-27-6	E680E	5.0	mg/L	<5.0	<5.0	0	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: 1508258)						
Solids, total dissolved [TDS]	---	E162	10	mg/L	<10	---
Physical Tests (QCLot: 1508260)						
Solids, total suspended [TSS]	---	E160	3	mg/L	<3.0	---
Physical Tests (QCLot: 1509579)						
Alkalinity, total (as CaCO3)	---	E290	1	mg/L	<1.0	---
Anions and Nutrients (QCLot: 1508714)						
Nitrogen, total	7727-37-9	E366	0.03	mg/L	<0.030	---
Anions and Nutrients (QCLot: 1508715)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	---
Anions and Nutrients (QCLot: 1508716)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	---
Anions and Nutrients (QCLot: 1509572)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	---
Anions and Nutrients (QCLot: 1509573)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	---
Anions and Nutrients (QCLot: 1509574)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	---
Anions and Nutrients (QCLot: 1509575)						
Bromide	24959-67-9	E235.Br-L	0.05	mg/L	<0.050	---
Anions and Nutrients (QCLot: 1509576)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	---
Anions and Nutrients (QCLot: 1509577)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	---
Organic / Inorganic Carbon (QCLot: 1508713)						
Carbon, dissolved organic [DOC]	---	E358-L	0.5	mg/L	<0.50	---
Total Sulfides (QCLot: 1508721)						
Sulfide, total (as S)	18496-25-8	E395	0.0015	mg/L	<0.0015	---
Total Metals (QCLot: 1508324)						
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	---



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1508324) - continued						
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	----
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	----



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1509810)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1508509)						
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	----
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	----



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1508509) - continued						
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	----
Dissolved Metals (QCLot: 1509940)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Speciated Metals (QCLot: 1510772)						
Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.0005	mg/L	<0.00050	----
Aggregate Organics (QCLot: 1512677)						
Phenols, total (4AAP)	----	E562	0.001	mg/L	<0.0010	----
Volatile Organic Compounds (QCLot: 1508082)						
Benzene	71-43-2	E611C	0.5	µg/L	<0.50	----
Bromodichloromethane	75-27-4	E611C	0.5	µg/L	<0.50	----
Bromoform	75-25-2	E611C	0.5	µg/L	<0.50	----
Carbon tetrachloride	56-23-5	E611C	0.5	µg/L	<0.50	----
Chlorobenzene	108-90-7	E611C	0.5	µg/L	<0.50	----
Chloroethane	75-00-3	E611C	0.5	µg/L	<0.50	----
Chloroform	67-66-3	E611C	0.5	µg/L	<0.50	----
Chloromethane	74-87-3	E611C	5	µg/L	<5.0	----
Dibromochloromethane	124-48-1	E611C	0.5	µg/L	<0.50	----
Dichlorobenzene, 1,2-	95-50-1	E611C	0.5	µg/L	<0.50	----
Dichlorobenzene, 1,3-	541-73-1	E611C	0.5	µg/L	<0.50	----
Dichlorobenzene, 1,4-	106-46-7	E611C	0.5	µg/L	<0.50	----
Dichloroethane, 1,1-	75-34-3	E611C	0.5	µg/L	<0.50	----
Dichloroethane, 1,2-	107-06-2	E611C	0.5	µg/L	<0.50	----
Dichloroethylene, 1,1-	75-35-4	E611C	0.5	µg/L	<0.50	----
Dichloroethylene, cis-1,2-	156-59-2	E611C	0.5	µg/L	<0.50	----
Dichloroethylene, trans-1,2-	156-60-5	E611C	0.5	µg/L	<0.50	----
Dichloromethane	75-09-2	E611C	1	µg/L	<1.0	----
Dichloropropane, 1,2-	78-87-5	E611C	0.5	µg/L	<0.50	----
Dichloropropylene, cis-1,3-	10061-01-5	E611C	0.5	µg/L	<0.50	----
Dichloropropylene, trans-1,3-	10061-02-6	E611C	0.5	µg/L	<0.50	----
Ethylbenzene	100-41-4	E611C	0.5	µg/L	<0.50	----



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Volatile Organic Compounds (QCLot: 1508082) - continued						
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611C	0.5	µg/L	<0.50	----
Styrene	100-42-5	E611C	0.5	µg/L	<0.50	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611C	0.5	µg/L	<0.50	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611C	0.2	µg/L	<0.20	----
Tetrachloroethylene	127-18-4	E611C	0.5	µg/L	<0.50	----
Toluene	108-88-3	E611C	0.4	µg/L	<0.40	----
Trichloroethane, 1,1,1-	71-55-6	E611C	0.5	µg/L	<0.50	----
Trichloroethane, 1,1,2-	79-00-5	E611C	0.5	µg/L	<0.50	----
Trichloroethylene	79-01-6	E611C	0.5	µg/L	<0.50	----
Trichlorofluoromethane	75-69-4	E611C	0.5	µg/L	<0.50	----
Vinyl chloride	75-01-4	E611C	0.4	µg/L	<0.40	----
Xylene, m+p-	179601-23-1	E611C	0.4	µg/L	<0.40	----
Xylene, o-	95-47-6	E611C	0.3	µg/L	<0.30	----
Hydrocarbons (QCLot: 1508081)						
VHw (C6-C10)	----	E581.VH+F1	100	µg/L	<100	----
Hydrocarbons (QCLot: 1508256)						
EPH (C10-C19)	----	E601A	250	µg/L	<250	----
EPH (C19-C32)	----	E601A	250	µg/L	<250	----
Polycyclic Aromatic Hydrocarbons (QCLot: 1508257)						
Acenaphthene	83-32-9	E641A	0.01	µg/L	<0.010	----
Acenaphthylene	208-96-8	E641A	0.01	µg/L	<0.010	----
Acridine	260-94-6	E641A	0.01	µg/L	<0.010	----
Anthracene	120-12-7	E641A	0.01	µg/L	<0.010	----
Benz(a)anthracene	56-55-3	E641A	0.01	µg/L	<0.010	----
Benzo(a)pyrene	50-32-8	E641A	0.005	µg/L	<0.0050	----
Benzo(b+j)fluoranthene	n/a	E641A	0.01	µg/L	<0.010	----
Benzo(g,h,i)perylene	191-24-2	E641A	0.01	µg/L	<0.010	----
Benzo(k)fluoranthene	207-08-9	E641A	0.01	µg/L	<0.010	----
Chrysene	218-01-9	E641A	0.01	µg/L	<0.010	----
Dibenz(a,h)anthracene	53-70-3	E641A	0.005	µg/L	<0.0050	----
Fluoranthene	206-44-0	E641A	0.01	µg/L	<0.010	----
Fluorene	86-73-7	E641A	0.01	µg/L	<0.010	----
Indeno(1,2,3-c,d)pyrene	193-39-5	E641A	0.01	µg/L	<0.010	----
Methylnaphthalene, 1-	90-12-0	E641A	0.01	µg/L	<0.010	----
Methylnaphthalene, 2-	91-57-6	E641A	0.01	µg/L	<0.010	----



Sub-Matrix: **Water**

<i>Analyte</i>	<i>CAS Number</i>	<i>Method</i>	<i>LOR</i>	<i>Unit</i>	<i>Result</i>	<i>Qualifier</i>
Polycyclic Aromatic Hydrocarbons (QCLot: 1508257) - continued						
Naphthalene	91-20-3	E641A	0.05	µg/L	<0.050	----
Phenanthrene	85-01-8	E641A	0.02	µg/L	<0.020	----
Pyrene	129-00-0	E641A	0.01	µg/L	<0.010	----
Quinoline	91-22-5	E641A	0.05	µg/L	<0.050	----
Glycols (QCLot: 1510718)						
Diethylene glycol	111-46-6	E680E	5	mg/L	<5.0	----
Ethylene glycol	107-21-1	E680E	5	mg/L	<5.0	----
Propylene glycol, 1,2-	57-55-6	E680E	5	mg/L	<5.0	----
Triethylene glycol	112-27-6	E680E	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: 1508258)									
Solids, total dissolved [TDS]	----	E162	10	mg/L	1000 mg/L	107	85.0	115	----
Physical Tests (QCLot: 1508260)									
Solids, total suspended [TSS]	----	E160	3	mg/L	150 mg/L	90.3	85.0	115	----
Physical Tests (QCLot: 1509579)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	500 mg/L	105	85.0	115	----
Anions and Nutrients (QCLot: 1508714)									
Nitrogen, total	7727-37-9	E366	0.03	mg/L	0.5 mg/L	99.7	75.0	125	----
Anions and Nutrients (QCLot: 1508715)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.05 mg/L	96.6	80.0	120	----
Anions and Nutrients (QCLot: 1508716)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	93.5	85.0	115	----
Anions and Nutrients (QCLot: 1509572)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	99.5	90.0	110	----
Anions and Nutrients (QCLot: 1509573)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1509574)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1509575)									
Bromide	24959-67-9	E235.Br-L	0.05	mg/L	0.5 mg/L	103	85.0	115	----
Anions and Nutrients (QCLot: 1509576)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1509577)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	97.1	90.0	110	----
Organic / Inorganic Carbon (QCLot: 1508713)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	107	80.0	120	----
Total Sulfides (QCLot: 1508721)									
Sulfide, total (as S)	18496-25-8	E395	0.0015	mg/L	0.08 mg/L	105	80.0	120	----
Total Metals (QCLot: 1508324)									



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: 1508324) - continued									
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	101	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	106	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	100	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	99.9	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	99.3	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	101	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	100	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	100	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	100	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	99.2	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	104	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	99.0	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	111	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	102	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	108	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	99.7	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	107	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	95.5	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	111	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	93.5	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	103	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	100	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	96.7	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	98.8	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	99.0	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	98.8	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	106	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: 1508324) - continued									
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	97.9	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	96.5	80.0	120	----
Total Metals (QCLot: 1509810)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	96.0	80.0	120	----
Dissolved Metals (QCLot: 1508509)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	104	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	97.4	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	102	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	106	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	97.9	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	96.9	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	93.8	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	101	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	97.6	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	98.0	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	98.8	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	97.0	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	98.4	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	98.4	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	97.5	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	104	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	99.6	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	99.2	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	99.6	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	97.3	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	105	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	98.2	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	101	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	96.9	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	103	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	92.8	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	110	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	96.0	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	88.4	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
Dissolved Metals (QCLot: 1508509) - continued									
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	104	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	96.1	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	91.5	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	94.8	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	101	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	94.4	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	102	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	96.3	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	91.4	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	99.2	80.0	120	----
Speciated Metals (QCLot: 1510772)									
Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.0005	mg/L	0.25 mg/L	103	80.0	120	----
Aggregate Organics (QCLot: 1512677)									
Phenols, total (4AAP)	----	E562	0.001	mg/L	0.02 mg/L	91.6	85.0	115	----
Volatile Organic Compounds (QCLot: 1508082)									
Benzene	71-43-2	E611C	0.5	µg/L	100 µg/L	98.8	70.0	130	----
Bromodichloromethane	75-27-4	E611C	0.5	µg/L	100 µg/L	95.7	70.0	130	----
Bromoform	75-25-2	E611C	0.5	µg/L	100 µg/L	90.3	70.0	130	----
Carbon tetrachloride	56-23-5	E611C	0.5	µg/L	100 µg/L	96.7	70.0	130	----
Chlorobenzene	108-90-7	E611C	0.5	µg/L	100 µg/L	94.5	70.0	130	----
Chloroethane	75-00-3	E611C	0.5	µg/L	100 µg/L	101	60.0	140	----
Chloroform	67-66-3	E611C	0.5	µg/L	100 µg/L	98.2	70.0	130	----
Chloromethane	74-87-3	E611C	5	µg/L	100 µg/L	106	60.0	140	----
Dibromochloromethane	124-48-1	E611C	0.5	µg/L	100 µg/L	97.1	70.0	130	----
Dichlorobenzene, 1,2-	95-50-1	E611C	0.5	µg/L	100 µg/L	96.8	70.0	130	----
Dichlorobenzene, 1,3-	541-73-1	E611C	0.5	µg/L	100 µg/L	98.1	70.0	130	----
Dichlorobenzene, 1,4-	106-46-7	E611C	0.5	µg/L	100 µg/L	102	70.0	130	----
Dichloroethane, 1,1-	75-34-3	E611C	0.5	µg/L	100 µg/L	93.6	70.0	130	----
Dichloroethane, 1,2-	107-06-2	E611C	0.5	µg/L	100 µg/L	99.3	70.0	130	----
Dichloroethylene, 1,1-	75-35-4	E611C	0.5	µg/L	100 µg/L	88.5	70.0	130	----
Dichloroethylene, cis-1,2-	156-59-2	E611C	0.5	µg/L	100 µg/L	93.4	70.0	130	----
Dichloroethylene, trans-1,2-	156-60-5	E611C	0.5	µg/L	100 µg/L	92.4	70.0	130	----



Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Volatile Organic Compounds (QCLot: 1508082) - continued									
Dichloromethane	75-09-2	E611C	1	µg/L	100 µg/L	98.6	70.0	130	----
Dichloropropane, 1,2-	78-87-5	E611C	0.5	µg/L	100 µg/L	98.1	70.0	130	----
Dichloropropylene, cis-1,3-	10061-01-5	E611C	0.5	µg/L	100 µg/L	101	70.0	130	----
Dichloropropylene, trans-1,3-	10061-02-6	E611C	0.5	µg/L	100 µg/L	94.2	70.0	130	----
Ethylbenzene	100-41-4	E611C	0.5	µg/L	100 µg/L	92.3	70.0	130	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611C	0.5	µg/L	100 µg/L	98.3	70.0	130	----
Styrene	100-42-5	E611C	0.5	µg/L	100 µg/L	100	70.0	130	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611C	0.5	µg/L	100 µg/L	94.6	70.0	130	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611C	0.2	µg/L	100 µg/L	93.5	70.0	130	----
Tetrachloroethylene	127-18-4	E611C	0.5	µg/L	100 µg/L	88.9	70.0	130	----
Toluene	108-88-3	E611C	0.4	µg/L	100 µg/L	96.3	70.0	130	----
Trichloroethane, 1,1,1-	71-55-6	E611C	0.5	µg/L	100 µg/L	98.0	70.0	130	----
Trichloroethane, 1,1,2-	79-00-5	E611C	0.5	µg/L	100 µg/L	93.7	70.0	130	----
Trichloroethylene	79-01-6	E611C	0.5	µg/L	100 µg/L	95.4	70.0	130	----
Trichlorofluoromethane	75-69-4	E611C	0.5	µg/L	100 µg/L	108	60.0	140	----
Vinyl chloride	75-01-4	E611C	0.4	µg/L	100 µg/L	104	60.0	140	----
Xylene, m+p-	179601-23-1	E611C	0.4	µg/L	200 µg/L	94.6	70.0	130	----
Xylene, o-	95-47-6	E611C	0.3	µg/L	100 µg/L	90.8	70.0	130	----
Hydrocarbons (QCLot: 1508081)									
VHw (C6-C10)	----	E581.VH+F1	100	µg/L	6310 µg/L	79.4	70.0	130	----
Hydrocarbons (QCLot: 1508256)									
EPH (C10-C19)	----	E601A	250	µg/L	6490 µg/L	116	70.0	130	----
EPH (C19-C32)	----	E601A	250	µg/L	3360 µg/L	119	70.0	130	----
Polycyclic Aromatic Hydrocarbons (QCLot: 1508257)									
Acenaphthene	83-32-9	E641A	0.01	µg/L	0.5 µg/L	100	60.0	130	----
Acenaphthylene	208-96-8	E641A	0.01	µg/L	0.5 µg/L	107	60.0	130	----
Acridine	260-94-6	E641A	0.01	µg/L	0.5 µg/L	104	60.0	130	----
Anthracene	120-12-7	E641A	0.01	µg/L	0.5 µg/L	102	60.0	130	----
Benz(a)anthracene	56-55-3	E641A	0.01	µg/L	0.5 µg/L	109	60.0	130	----
Benzo(a)pyrene	50-32-8	E641A	0.005	µg/L	0.5 µg/L	103	60.0	130	----
Benzo(b+j)fluoranthene	n/a	E641A	0.01	µg/L	0.5 µg/L	87.6	60.0	130	----
Benzo(g,h,i)perylene	191-24-2	E641A	0.01	µg/L	0.5 µg/L	83.5	60.0	130	----
Benzo(k)fluoranthene	207-08-9	E641A	0.01	µg/L	0.5 µg/L	90.5	60.0	130	----
Chrysene	218-01-9	E641A	0.01	µg/L	0.5 µg/L	111	60.0	130	----



Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Polycyclic Aromatic Hydrocarbons (QCLot: 1508257) - continued									
Dibenz(a,h)anthracene	53-70-3	E641A	0.005	µg/L	0.5 µg/L	107	60.0	130	----
Fluoranthene	206-44-0	E641A	0.01	µg/L	0.5 µg/L	102	60.0	130	----
Fluorene	86-73-7	E641A	0.01	µg/L	0.5 µg/L	99.0	60.0	130	----
Indeno(1,2,3-c,d)pyrene	193-39-5	E641A	0.01	µg/L	0.5 µg/L	98.6	60.0	130	----
Methylnaphthalene, 1-	90-12-0	E641A	0.01	µg/L	0.5 µg/L	93.2	60.0	130	----
Methylnaphthalene, 2-	91-57-6	E641A	0.01	µg/L	0.5 µg/L	101	60.0	130	----
Naphthalene	91-20-3	E641A	0.05	µg/L	0.5 µg/L	94.1	50.0	130	----
Phenanthrene	85-01-8	E641A	0.02	µg/L	0.5 µg/L	100	60.0	130	----
Pyrene	129-00-0	E641A	0.01	µg/L	0.5 µg/L	102	60.0	130	----
Quinoline	91-22-5	E641A	0.05	µg/L	0.5 µg/L	106	60.0	130	----
Glycols (QCLot: 1510718)									
Diethylene glycol	111-46-6	E680E	5	mg/L	25 mg/L	113	70.0	130	----
Ethylene glycol	107-21-1	E680E	5	mg/L	25 mg/L	112	70.0	130	----
Propylene glycol, 1,2-	57-55-6	E680E	5	mg/L	25 mg/L	110	70.0	130	----
Triethylene glycol	112-27-6	E680E	5	mg/L	25 mg/L	113	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 (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1509572)										
VA24B4781-002	Anonymous	Chloride	16887-00-6	E235.Cl	1000 mg/L	1000 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 1509573)										
VA24B4781-002	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	1000 mg/L	1000 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 1509574)										
VA24B4781-002	Anonymous	Fluoride	16984-48-8	E235.F	11.2 mg/L	10 mg/L	112	75.0	125	----
Anions and Nutrients (QCLot: 1509575)										
VA24B4781-002	Anonymous	Bromide	24959-67-9	E235.Br-L	5.52 mg/L	5 mg/L	110	75.0	125	----
Anions and Nutrients (QCLot: 1509576)										
VA24B4781-002	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	25.4 mg/L	25 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 1509577)										
VA24B4781-002	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	4.93 mg/L	5 mg/L	98.7	75.0	125	----
Total Sulfides (QCLot: 1508721)										
CG2408212-002	Anonymous	Sulfide, total (as S)	18496-25-8	E395	0.202 mg/L	0.2 mg/L	101	75.0	125	----
Total Metals (QCLot: 1508324)										
VA24B4755-001	WLNG EOP	Aluminum, total	7429-90-5	E420	0.195 mg/L	0.2 mg/L	97.6	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0180 mg/L	0.02 mg/L	90.1	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0198 mg/L	0.02 mg/L	99.1	70.0	130	----
		Barium, total	7440-39-3	E420	0.0198 mg/L	0.02 mg/L	98.8	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0369 mg/L	0.04 mg/L	92.3	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00875 mg/L	0.01 mg/L	87.5	70.0	130	----
		Boron, total	7440-42-8	E420	0.090 mg/L	0.1 mg/L	89.6	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00376 mg/L	0.004 mg/L	94.1	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.00941 mg/L	0.01 mg/L	94.1	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0385 mg/L	0.04 mg/L	96.2	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0191 mg/L	0.02 mg/L	95.7	70.0	130	----
		Copper, total	7440-50-8	E420	0.0184 mg/L	0.02 mg/L	92.1	70.0	130	----
		Iron, total	7439-89-6	E420	1.86 mg/L	2 mg/L	93.2	70.0	130	----
		Lead, total	7439-92-1	E420	0.0177 mg/L	0.02 mg/L	88.7	70.0	130	----
		Lithium, total	7439-93-2	E420	0.0918 mg/L	0.1 mg/L	91.8	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	0.0184 mg/L	0.02 mg/L	92.2	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0371 mg/L	0.04 mg/L	92.8	70.0	130	----
		Phosphorus, total	7723-14-0	E420	9.75 mg/L	10 mg/L	97.5	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: 1508324) - continued										
VA24B4755-001	WLNQ EOP	Potassium, total	7440-09-7	E420	ND mg/L	---	ND	70.0	130	---
		Rubidium, total	7440-17-7	E420	0.0201 mg/L	0.02 mg/L	100	70.0	130	---
		Selenium, total	7782-49-2	E420	0.0377 mg/L	0.04 mg/L	94.3	70.0	130	---
		Silicon, total	7440-21-3	E420	9.23 mg/L	10 mg/L	92.3	70.0	130	---
		Silver, total	7440-22-4	E420	0.00372 mg/L	0.004 mg/L	93.0	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	19.1 mg/L	20 mg/L	95.7	70.0	130	---
		Tellurium, total	13494-80-9	E420	0.0386 mg/L	0.04 mg/L	96.6	70.0	130	---
		Thallium, total	7440-28-0	E420	0.00345 mg/L	0.004 mg/L	86.3	70.0	130	---
		Thorium, total	7440-29-1	E420	0.0195 mg/L	0.02 mg/L	97.7	70.0	130	---
		Tin, total	7440-31-5	E420	0.0181 mg/L	0.02 mg/L	90.7	70.0	130	---
		Titanium, total	7440-32-6	E420	0.0398 mg/L	0.04 mg/L	99.5	70.0	130	---
		Tungsten, total	7440-33-7	E420	0.0180 mg/L	0.02 mg/L	89.8	70.0	130	---
		Uranium, total	7440-61-1	E420	0.00387 mg/L	0.004 mg/L	96.7	70.0	130	---
		Vanadium, total	7440-62-2	E420	0.0982 mg/L	0.1 mg/L	98.2	70.0	130	---
		Zinc, total	7440-66-6	E420	0.371 mg/L	0.4 mg/L	92.7	70.0	130	---
		Zirconium, total	7440-67-7	E420	0.0373 mg/L	0.04 mg/L	93.2	70.0	130	---
Total Metals (QCLot: 1509810)										
FJ2401728-002	Anonymous	Mercury, total	7439-97-6	E508	0.0000940 mg/L	0 mg/L	94.0	70.0	130	---
Dissolved Metals (QCLot: 1508509)										
VA24B4784-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.216 mg/L	0.2 mg/L	108	70.0	130	---
		Antimony, dissolved	7440-36-0	E421	0.0194 mg/L	0.02 mg/L	97.0	70.0	130	---
		Arsenic, dissolved	7440-38-2	E421	0.0220 mg/L	0.02 mg/L	110	70.0	130	---
		Barium, dissolved	7440-39-3	E421	ND mg/L	---	ND	70.0	130	---
		Beryllium, dissolved	7440-41-7	E421	0.0405 mg/L	0.04 mg/L	101	70.0	130	---
		Bismuth, dissolved	7440-69-9	E421	0.00864 mg/L	0.01 mg/L	86.4	70.0	130	---
		Boron, dissolved	7440-42-8	E421	ND mg/L	---	ND	70.0	130	---
		Cadmium, dissolved	7440-43-9	E421	0.00395 mg/L	0.004 mg/L	98.8	70.0	130	---
		Calcium, dissolved	7440-70-2	E421	ND mg/L	---	ND	70.0	130	---
		Cesium, dissolved	7440-46-2	E421	0.00985 mg/L	0.01 mg/L	98.5	70.0	130	---
		Chromium, dissolved	7440-47-3	E421	0.0391 mg/L	0.04 mg/L	97.8	70.0	130	---
		Cobalt, dissolved	7440-48-4	E421	0.0190 mg/L	0.02 mg/L	95.0	70.0	130	---
		Copper, dissolved	7440-50-8	E421	0.0184 mg/L	0.02 mg/L	92.0	70.0	130	---
		Iron, dissolved	7439-89-6	E421	1.77 mg/L	2 mg/L	88.7	70.0	130	---
		Lead, dissolved	7439-92-1	E421	0.0177 mg/L	0.02 mg/L	88.5	70.0	130	---
		Lithium, dissolved	7439-93-2	E421	0.102 mg/L	0.1 mg/L	102	70.0	130	---
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	---	ND	70.0	130	---
		Manganese, dissolved	7439-96-5	E421	ND mg/L	---	ND	70.0	130	---
		Molybdenum, dissolved	7439-98-7	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	---
		Nickel, dissolved	7440-02-0	E421	0.0373 mg/L	0.04 mg/L	93.4	70.0	130	---
		Phosphorus, dissolved	7723-14-0	E421	11.4 mg/L	10 mg/L	114	70.0	130	---
		Potassium, dissolved	7440-09-7	E421	ND mg/L	---	ND	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
Dissolved Metals (QCLot: 1508509) - continued										
VA24B4784-001	Anonymous	Rubidium, dissolved	7440-17-7	E421	ND mg/L	----	ND	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0451 mg/L	0.04 mg/L	113	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	10.7 mg/L	10 mg/L	107	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00330 mg/L	0.004 mg/L	82.5	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	20.1 mg/L	20 mg/L	101	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0428 mg/L	0.04 mg/L	107	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00349 mg/L	0.004 mg/L	87.3	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0199 mg/L	0.02 mg/L	99.7	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0192 mg/L	0.02 mg/L	95.9	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0410 mg/L	0.04 mg/L	102	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0187 mg/L	0.02 mg/L	93.7	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00391 mg/L	0.004 mg/L	97.8	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.103 mg/L	0.1 mg/L	103	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.383 mg/L	0.4 mg/L	95.8	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0407 mg/L	0.04 mg/L	102	70.0	130	----
Speciated Metals (QCLot: 1510772)										
VA24B4755-001	WLNG EOP	Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.248 mg/L	0.25 mg/L	99.3	70.0	130	----
Aggregate Organics (QCLot: 1512677)										
VA24B4755-001	WLNG EOP	Phenols, total (4AAP)	----	E562	0.0186 mg/L	0.02 mg/L	93.2	75.0	125	----
Volatile Organic Compounds (QCLot: 1508082)										
VA24B4755-001	WLNG EOP	Benzene	71-43-2	E611C	98.0 µg/L	100 µg/L	98.0	60.0	140	----
		Bromodichloromethane	75-27-4	E611C	92.6 µg/L	100 µg/L	92.6	60.0	140	----
		Bromoform	75-25-2	E611C	82.7 µg/L	100 µg/L	82.7	60.0	140	----
		Carbon tetrachloride	56-23-5	E611C	98.8 µg/L	100 µg/L	98.8	60.0	140	----
		Chlorobenzene	108-90-7	E611C	96.2 µg/L	100 µg/L	96.2	60.0	140	----
		Chloroethane	75-00-3	E611C	95.7 µg/L	100 µg/L	95.7	50.0	150	----
		Chloroform	67-66-3	E611C	97.2 µg/L	100 µg/L	97.2	60.0	140	----
		Chloromethane	74-87-3	E611C	93.8 µg/L	100 µg/L	93.8	50.0	150	----
		Dibromochloromethane	124-48-1	E611C	93.8 µg/L	100 µg/L	93.8	60.0	140	----
		Dichlorobenzene, 1,2-	95-50-1	E611C	94.7 µg/L	100 µg/L	94.7	60.0	140	----
		Dichlorobenzene, 1,3-	541-73-1	E611C	97.7 µg/L	100 µg/L	97.7	60.0	140	----
		Dichlorobenzene, 1,4-	106-46-7	E611C	99.5 µg/L	100 µg/L	99.5	60.0	140	----
		Dichloroethane, 1,1-	75-34-3	E611C	94.1 µg/L	100 µg/L	94.1	60.0	140	----
		Dichloroethane, 1,2-	107-06-2	E611C	94.1 µg/L	100 µg/L	94.1	60.0	140	----
		Dichloroethylene, 1,1-	75-35-4	E611C	86.9 µg/L	100 µg/L	86.9	60.0	140	----
		Dichloroethylene, cis-1,2-	156-59-2	E611C	92.0 µg/L	100 µg/L	92.0	60.0	140	----
		Dichloroethylene, trans-1,2-	156-60-5	E611C	90.3 µg/L	100 µg/L	90.3	60.0	140	----
		Dichloromethane	75-09-2	E611C	95.2 µg/L	100 µg/L	95.2	60.0	140	----
		Dichloropropane, 1,2-	78-87-5	E611C	96.8 µg/L	100 µg/L	96.8	60.0	140	----
		Dichloropropylene, cis-1,3-	10061-01-5	E611C	97.7 µg/L	100 µg/L	97.7	60.0	140	----
		Dichloropropylene, trans-1,3-	10061-02-6	E611C	93.3 µg/L	100 µg/L	93.3	60.0	140	----



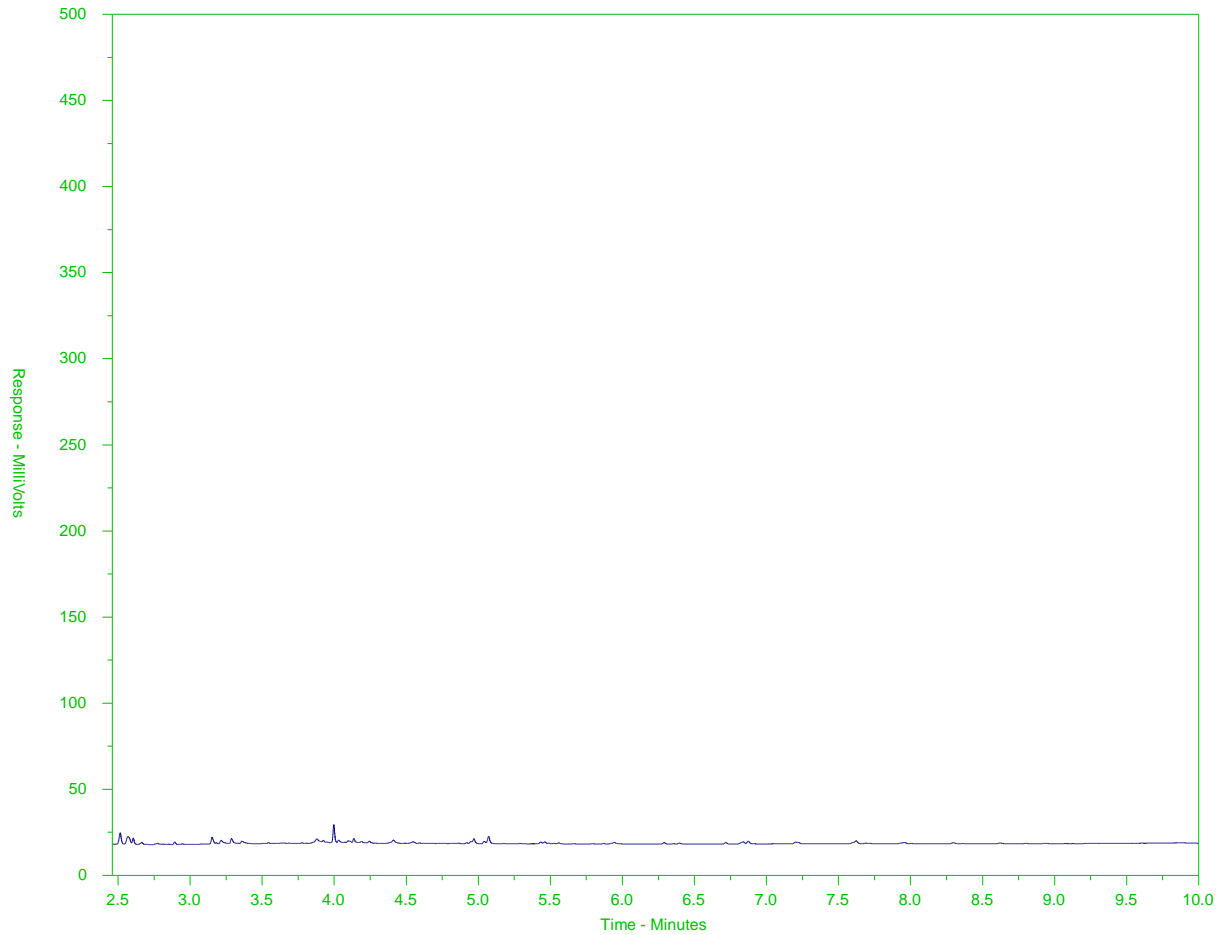
Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Volatile Organic Compounds (QCLot: 1508082) - continued										
VA24B4755-001	WLNG EOP	Ethylbenzene	100-41-4	E611C	96.9 µg/L	100 µg/L	96.9	60.0	140	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611C	101 µg/L	100 µg/L	101	60.0	140	----
		Styrene	100-42-5	E611C	99.8 µg/L	100 µg/L	99.8	60.0	140	----
		Tetrachloroethane, 1,1,1,2-	630-20-6	E611C	94.3 µg/L	100 µg/L	94.3	60.0	140	----
		Tetrachloroethane, 1,1,2,2-	79-34-5	E611C	85.7 µg/L	100 µg/L	85.7	60.0	140	----
		Tetrachloroethylene	127-18-4	E611C	94.1 µg/L	100 µg/L	94.1	60.0	140	----
		Toluene	108-88-3	E611C	101 µg/L	100 µg/L	101	60.0	140	----
		Trichloroethane, 1,1,1-	71-55-6	E611C	99.6 µg/L	100 µg/L	99.6	60.0	140	----
		Trichloroethane, 1,1,2-	79-00-5	E611C	91.2 µg/L	100 µg/L	91.2	60.0	140	----
		Trichloroethylene	79-01-6	E611C	96.1 µg/L	100 µg/L	96.1	60.0	140	----
		Trichlorofluoromethane	75-69-4	E611C	103 µg/L	100 µg/L	103	50.0	150	----
		Vinyl chloride	75-01-4	E611C	95.3 µg/L	100 µg/L	95.3	50.0	150	----
		Xylene, m+p-	179601-23-1	E611C	197 µg/L	200 µg/L	98.4	60.0	140	----
		Xylene, o-	95-47-6	E611C	94.2 µg/L	100 µg/L	94.2	60.0	140	----

BC EPH HYDROCARBON DISTRIBUTION REPORT



ALS Sample ID: VA24B4755-001-E601A
Client Sample ID: WLNG EOP



EPH10-19		EPH19-32	
nC10	nC19		nC32
174°C	330°C		467°C
346°F	626°F		873°F
Gasoline		Motor Oils/ Lube Oils/ Grease	
Diesel/ Jet Fuels			

The BC EPH Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and three n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

A "-L-" in the sample ID denotes a low level sample. A "-S-" denotes a silica gel cleaned sample.

Note: This chromatogram was produced using GC conditions that are specific to the ALS Canada EPH method. Refer to the ALS Canada EPH Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.



Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878

www.alsglobal.com

Affix ALS barcode label here (lab use only)

COC Number: 17 -

Page 1 of

Report To Contact and company name below will appear on the final report		Report Format / Distribution		Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)																
Company:	Triton Environmental	Select Report Format:	<input type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input type="checkbox"/> EDD (DIGITAL)	Regular [R] <input type="checkbox"/> Standard TAT if received by 3 pm - business days - no surcharges apply																
Contact:	[Redacted]	Quality Control (QC) Report with Report	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	PRIORITY (Business Days)		EMERGENCY														
Phone:	[Redacted]	<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked		4 day [P4-20%] <input type="checkbox"/>		1 Business day [E1 - 100%] <input checked="" type="checkbox"/>														
[Redacted] on the final report		Select Distribution:	<input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX	3 day [P3-25%] <input type="checkbox"/>		Same Day, Weekend or Statutory holiday [E2 - 200% (Laboratory opening fees may apply)] <input type="checkbox"/>														
Street:	[Redacted]	Email 1 or Fax:	[Redacted]	2 day [P2-50%] <input type="checkbox"/>		Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm														
City/Province:	[Redacted]	Email 2:	[Redacted]	For tests that can not be performed according to the service level selected, you will be contacted.																
Postal Code:	[Redacted]	Email 3:	[Redacted]	Analysis Request																
Invoice To	Same as Report To <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Invoice Distribution		Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below																
Company:	[Redacted]	Select Invoice Distribution:	<input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX																	
Contact:	[Redacted]	Email 1 or Fax:	[Redacted]																	
Project Information		Oil and Gas Required Fields (client use)																		
ALS Account # / Quote #:	VA23-TRIT100-012	AFE/Cost Center:	PO#																	
Job #:	11964	Major/Minor Code:	Routing Code:																	
PO / AFE:	11964 - Task 30 - Phase 3C-4C	Requisitioner:																		
LSD:		Location:																		
ALS Lab Work Order # (lab use only): B4755		ALS Contact:	[Redacted]	Sampler:																
ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)		Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Total metals + mercury	Dissolved metals + mercury	Total hexavalent chromium	Total trivalent chromium	TSS, TDS, T-Alkalinity, Anions scan (Br, Cl, F, ...)	Total sulfide (low) (as H2S), Unionized Sulfide (low)	Nutrients (ammonia, ammonium, total nitrogen, total phosphorus, phenols)	VOC/PH	EPH, PAH, LEPAH/HEPH	DOC	Glycols	General parameters (alkalinity)	SAMPLES ON HOLD	Sample is hazardous (please provide further details)	NUMBER OF CONTAINERS
	SCR EOP				Water	R	R	R	R	R	R	R	R	R	R	R	R			16
	pH: cond: temp:				Water	R	R	R	R	R	R	R	R	R	R	R	R			15
	WLNG EOP				Water	R	R	R	R	R	R	R	R	R	R	R	R			15
	pH: 7.42 cond: 285 µS/cm temp: 19.9 °C		21-Jun-24	9:58	Water	E	E	E	E	E	E	E	E	E	E	E	E			15
	Duplicate				Water	R	R	R	R	R	R	R	R	R	R	R	R			15
	Field Blank				Water	R	R	R	R	R	R	R	R	R	R	R	R			15
	Trip Blank				Water	R	R	R	R	R	R	R	R	R	R	R	R			11
Drinking Water (DW) Samples¹ (client use)		Special Instructions / Specify C																		
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO																				
Are samples for human consumption/ use? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO																				
SHIPMENT RELEASE (client use)		INITIAL SHIPMENT RECEPTION (lab use only)						FINAL SHIPMENT RECEPTION (lab use only)												
21 June 24		Time: 17:30	Received by: [Redacted]	Date: [Redacted]	Time: [Redacted]	Received by: [Redacted]	Date: [Redacted]	Time: [Redacted]	Received by: [Redacted]	Date: [Redacted]	Time: 5:40pm									

Environmental Division
Vancouver
Work Order Reference
VA24B4755



Telephone: +1 604 253 4188

CERTIFICATE OF ANALYSIS

Work Order : **VA24B4895**
Client : **Triton Environmental Consultants Ltd.**
Contact :
Address :

Telephone :
Project : 11964
PO : 11964 - Task 30 - Phase 3C-4C
C-O-C number : ----
Sampler : ----
Site : Water Analysis
Quote number : VA23-TRIT100-012_V2
No. of samples received : 1
No. of samples analysed : 1

Page : 1 of 10
Laboratory : ALS Environmental - Vancouver
Account Manager :
Address :

Telephone :
Date Samples Received : 24-Jun-2024 17:50
Date Analysis Commenced : 24-Jun-2024
Issue Date : 26-Jun-2024 16:44

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>
	Laboratory Analyst	Inorganics, Edmonton, Alberta
	Account Manager Assistant	Administration, Burnaby, British Columbia
	Supervisor - Metals ICP Instrumentation	Metals, Burnaby, British Columbia
	Lab Analyst	Metals, Burnaby, British Columbia
	Lab Assistant	Inorganics, Burnaby, British Columbia
	Team Leader - Metals	Metals, Burnaby, British Columbia
	Team Leader - Metals	Organics, Burnaby, British Columbia
	Analyst	Metals, Burnaby, British Columbia
	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).

<i>Unit</i>	<i>Description</i>
-	no units
°C	degrees celsius
µg/L	micrograms per litre
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
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.

Qualifiers

<i>Qualifier</i>	<i>Description</i>
DTMF	Dissolved concentration exceeds total for field-filtered metals sample. Metallic contaminants may have been introduced to dissolved sample during field filtration.



Analytical Results

Sub-Matrix: Water					Client sample ID	W LNG EOP	---	---	---	---
(Matrix: Water)					Client sampling date / time	24-Jun-2024 12:02	---	---	---	---
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4895-001	-----	-----	-----	-----	
					Result	---	---	---	---	
Field Tests										
Conductivity, field	----	EF001/VA	0.10	µS/cm	126.00	---	---	---	---	
pH, field	----	EF001/VA	0.10	pH units	7.57	---	---	---	---	
Temperature, field	----	EF001/VA	0.10	°C	17.6	---	---	---	---	
Physical Tests										
Hardness (as CaCO3), dissolved	----	EC100/VA	0.60	mg/L	27.2	---	---	---	---	
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/VA	0.60	mg/L	33.5	---	---	---	---	
Solids, total dissolved [TDS]	----	E162/VA	10	mg/L	100	---	---	---	---	
Solids, total suspended [TSS]	----	E160/VA	3.0	mg/L	<3.0	---	---	---	---	
Alkalinity, total (as CaCO3)	----	E290/VA	2.0	mg/L	63.6	---	---	---	---	
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L	0.0732	---	---	---	---	
Bromide	24959-67-9	E235.Br-L/VA	0.050	mg/L	<0.050	---	---	---	---	
Chloride	16887-00-6	E235.Cl/VA	0.50	mg/L	7.50	---	---	---	---	
Fluoride	16984-48-8	E235.F/VA	0.020	mg/L	0.400	---	---	---	---	
Nitrate (as N)	14797-55-8	E235.NO3-L/V A	0.0050	mg/L	<0.0050	---	---	---	---	
Nitrite (as N)	14797-65-0	E235.NO2-L/V A	0.0010	mg/L	<0.0010	---	---	---	---	
Nitrogen, total	7727-37-9	E366/VA	0.030	mg/L	0.510	---	---	---	---	
Phosphorus, total	7723-14-0	E372-U/VA	0.0020	mg/L	0.0273	---	---	---	---	
Sulfate (as SO4)	14808-79-8	E235.SO4/VA	0.30	mg/L	3.32	---	---	---	---	
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/VA	0.50	mg/L	3.04	---	---	---	---	
Total Sulfides										
Sulfide, total (as S)	18496-25-8	E395/VA	0.0015	mg/L	0.0017	---	---	---	---	
Sulfide, un-ionized (as H2S), from total	7783-06-4	EC395/VA	0.0015	mg/L	<0.0015	---	---	---	---	
Sulfide, total (as H2S)	7783-06-4	E395/VA	0.0016	mg/L	0.0018	---	---	---	---	
Total Metals										
Aluminum, total	7429-90-5	E420/VA	0.0030	mg/L	0.0220	---	---	---	---	
Antimony, total	7440-36-0	E420/VA	0.00010	mg/L	0.00051	---	---	---	---	



Analytical Results

Sub-Matrix: Water					Client sample ID	WLNQ EOP	----	----	----	----
(Matrix: Water)					Client sampling date / time	24-Jun-2024 12:02	---	---	---	---
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4895-001	-----	-----	-----	-----	
					Result	---	---	---	---	
Total Metals										
Arsenic, total	7440-38-2	E420/VA	0.00010	mg/L	0.00088	---	---	---	---	
Barium, total	7440-39-3	E420/VA	0.00010	mg/L	0.00338	---	---	---	---	
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	<0.0000050	---	---	---	---	
Calcium, total	7440-70-2	E420/VA	0.050	mg/L	11.6	---	---	---	---	
Cesium, total	7440-46-2	E420/VA	0.000010	mg/L	0.000031	---	---	---	---	
Chromium, total	7440-47-3	E420/VA	0.00050	mg/L	<0.00050	---	---	---	---	
Cobalt, total	7440-48-4	E420/VA	0.00010	mg/L	<0.00010	---	---	---	---	
Copper, total	7440-50-8	E420/VA	0.00050	mg/L	<0.00050	---	---	---	---	
Iron, total	7439-89-6	E420/VA	0.010	mg/L	0.581	---	---	---	---	
Lead, total	7439-92-1	E420/VA	0.000050	mg/L	<0.000050	---	---	---	---	
Lithium, total	7439-93-2	E420/VA	0.0010	mg/L	0.0116	---	---	---	---	
Magnesium, total	7439-95-4	E420/VA	0.0050	mg/L	1.11	---	---	---	---	
Manganese, total	7439-96-5	E420/VA	0.00010	mg/L	0.0307	---	---	---	---	
Mercury, total	7439-97-6	E508/VA	0.0000050	mg/L	<0.0000050	---	---	---	---	
Molybdenum, total	7439-98-7	E420/VA	0.000050	mg/L	0.00472	---	---	---	---	
Nickel, total	7440-02-0	E420/VA	0.00050	mg/L	<0.00050	---	---	---	---	
Phosphorus, total	7723-14-0	E420/VA	0.050	mg/L	<0.050	---	---	---	---	
Potassium, total	7440-09-7	E420/VA	0.050	mg/L	6.91	---	---	---	---	
Rubidium, total	7440-17-7	E420/VA	0.00020	mg/L	0.0108	---	---	---	---	
Selenium, total	7782-49-2	E420/VA	0.000050	mg/L	<0.000050	---	---	---	---	
Silicon, total	7440-21-3	E420/VA	0.10	mg/L	4.57	---	---	---	---	
Silver, total	7440-22-4	E420/VA	0.000010	mg/L	<0.000010	---	---	---	---	
Sodium, total	7440-23-5	E420/VA	0.050	mg/L	15.9	---	---	---	---	
Strontium, total	7440-24-6	E420/VA	0.00020	mg/L	0.0479	---	---	---	---	
Sulfur, total	7704-34-9	E420/VA	0.50	mg/L	1.22	---	---	---	---	
Tellurium, total	13494-80-9	E420/VA	0.00020	mg/L	<0.00020	---	---	---	---	
Thallium, total	7440-28-0	E420/VA	0.000010	mg/L	0.000040	---	---	---	---	



Analytical Results

Sub-Matrix: Water					Client sample ID	WLNQ EOP	----	----	----	----
(Matrix: Water)					Client sampling date / time	24-Jun-2024 12:02	---	---	---	---
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4895-001	-----	-----	-----	-----	
					Result	---	---	---	---	
Total Metals										
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	<0.00030	---	---	---	---	
Tungsten, total	7440-33-7	E420/VA	0.00010	mg/L	<0.00010	---	---	---	---	
Uranium, total	7440-61-1	E420/VA	0.000010	mg/L	0.000112	---	---	---	---	
Vanadium, total	7440-62-2	E420/VA	0.00050	mg/L	0.00071	---	---	---	---	
Zinc, total	7440-66-6	E420/VA	0.0030	mg/L	<0.0030	---	---	---	---	
Zirconium, total	7440-67-7	E420/VA	0.00020	mg/L	<0.00020	---	---	---	---	
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/VA	0.0010	mg/L	0.0111	---	---	---	---	
Antimony, dissolved	7440-36-0	E421/VA	0.00010	mg/L	0.00085 ^{DTMF}	---	---	---	---	
Arsenic, dissolved	7440-38-2	E421/VA	0.00010	mg/L	0.00062	---	---	---	---	
Barium, dissolved	7440-39-3	E421/VA	0.00010	mg/L	0.00197	---	---	---	---	
Beryllium, dissolved	7440-41-7	E421/VA	0.000100	mg/L	<0.000100	---	---	---	---	
Bismuth, dissolved	7440-69-9	E421/VA	0.000050	mg/L	<0.000050	---	---	---	---	
Boron, dissolved	7440-42-8	E421/VA	0.010	mg/L	0.014	---	---	---	---	
Cadmium, dissolved	7440-43-9	E421/VA	0.0000050	mg/L	<0.0000050	---	---	---	---	
Calcium, dissolved	7440-70-2	E421/VA	0.050	mg/L	9.46	---	---	---	---	
Cesium, dissolved	7440-46-2	E421/VA	0.000010	mg/L	0.000023	---	---	---	---	
Chromium, dissolved	7440-47-3	E421/VA	0.00050	mg/L	<0.00050	---	---	---	---	
Cobalt, dissolved	7440-48-4	E421/VA	0.00010	mg/L	<0.00010	---	---	---	---	
Copper, dissolved	7440-50-8	E421/VA	0.00020	mg/L	0.00028	---	---	---	---	
Iron, dissolved	7439-89-6	E421/VA	0.010	mg/L	0.117	---	---	---	---	
Lead, dissolved	7439-92-1	E421/VA	0.000050	mg/L	<0.000050	---	---	---	---	
Lithium, dissolved	7439-93-2	E421/VA	0.0010	mg/L	0.0140	---	---	---	---	
Magnesium, dissolved	7439-95-4	E421/VA	0.0050	mg/L	0.864	---	---	---	---	
Manganese, dissolved	7439-96-5	E421/VA	0.00010	mg/L	0.0266	---	---	---	---	
Mercury, dissolved	7439-97-6	E509/VA	0.0000050	mg/L	<0.0000050	---	---	---	---	
Molybdenum, dissolved	7439-98-7	E421/VA	0.000050	mg/L	0.00486	---	---	---	---	
Nickel, dissolved	7440-02-0	E421/VA	0.00050	mg/L	<0.00050	---	---	---	---	



Analytical Results

Sub-Matrix: Water					Client sample ID	WLNQ EOP	----	----	----	----
(Matrix: Water)					Client sampling date / time	24-Jun-2024 12:02	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4895-001	-----	-----	-----	-----	
					Result	---	---	---	---	
Dissolved Metals										
Phosphorus, dissolved	7723-14-0	E421/VA	0.050	mg/L	<0.050	---	---	---	---	
Potassium, dissolved	7440-09-7	E421/VA	0.050	mg/L	5.82	---	---	---	---	
Rubidium, dissolved	7440-17-7	E421/VA	0.00020	mg/L	0.00907	---	---	---	---	
Selenium, dissolved	7782-49-2	E421/VA	0.000050	mg/L	<0.000050	---	---	---	---	
Silicon, dissolved	7440-21-3	E421/VA	0.050	mg/L	3.69	---	---	---	---	
Silver, dissolved	7440-22-4	E421/VA	0.000010	mg/L	<0.000010	---	---	---	---	
Sodium, dissolved	7440-23-5	E421/VA	0.050	mg/L	12.1	---	---	---	---	
Strontium, dissolved	7440-24-6	E421/VA	0.00020	mg/L	0.0374	---	---	---	---	
Sulfur, dissolved	7704-34-9	E421/VA	0.50	mg/L	0.91	---	---	---	---	
Tellurium, dissolved	13494-80-9	E421/VA	0.00020	mg/L	<0.00020	---	---	---	---	
Thallium, dissolved	7440-28-0	E421/VA	0.000010	mg/L	0.000033	---	---	---	---	
Thorium, dissolved	7440-29-1	E421/VA	0.00010	mg/L	<0.00010	---	---	---	---	
Tin, dissolved	7440-31-5	E421/VA	0.00010	mg/L	<0.00010	---	---	---	---	
Titanium, dissolved	7440-32-6	E421/VA	0.00030	mg/L	<0.00030	---	---	---	---	
Tungsten, dissolved	7440-33-7	E421/VA	0.00010	mg/L	0.00038 ^{DTMF}	---	---	---	---	
Uranium, dissolved	7440-61-1	E421/VA	0.000010	mg/L	0.000124	---	---	---	---	
Vanadium, dissolved	7440-62-2	E421/VA	0.00050	mg/L	<0.00050	---	---	---	---	
Zinc, dissolved	7440-66-6	E421/VA	0.0010	mg/L	<0.0010	---	---	---	---	
Zirconium, dissolved	7440-67-7	E421/VA	0.00020	mg/L	<0.00020	---	---	---	---	
Dissolved mercury filtration location	----	EP509/VA	-	-	Field	---	---	---	---	
Dissolved metals filtration location	----	EP421/VA	-	-	Field	---	---	---	---	
Speciated Metals										
Chromium, hexavalent [Cr VI], total	18540-29-9	E532/VA	0.00050	mg/L	<0.00050	---	---	---	---	
Chromium, trivalent [Cr III], total	16065-83-1	EC535/VA	0.00050	mg/L	<0.00050	---	---	---	---	
Aggregate Organics										
Phenols, total (4AAP)	----	E562/EO	0.0010	mg/L	0.0038	---	---	---	---	
Volatile Organic Compounds										
Chlorobenzene	108-90-7	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Chloromethane	74-87-3	E611C/VA	5.0	µg/L	<5.0	---	---	---	---	
Dichlorobenzene, 1,2-	95-50-1	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	



Analytical Results

Sub-Matrix: Water					Client sample ID	W LNG EOP	----	----	----	----
(Matrix: Water)					Client sampling date / time	24-Jun-2024 12:02	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4895-001	-----	-----	-----	-----	
					Result	---	---	---	---	
Volatile Organic Compounds										
Dichlorobenzene, 1,3-	541-73-1	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dichlorobenzene, 1,4-	106-46-7	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dichloropropane, 1,2-	78-87-5	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dichloropropylene, cis+trans-1,3-	542-75-6	E611C/VA	0.75	µg/L	<0.75	---	---	---	---	
Dichloropropylene, cis-1,3-	10061-01-5	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Tetrachloroethane, 1,1,1,2-	630-20-6	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Tetrachloroethane, 1,1,2,2-	79-34-5	E611C/VA	0.20	µg/L	<0.20	---	---	---	---	
Trichloroethane, 1,1,2-	79-00-5	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Trichlorofluoromethane	75-69-4	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Volatile Organic Compounds [Drycleaning]										
Carbon tetrachloride	56-23-5	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Chloroethane	75-00-3	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dichloroethane, 1,1-	75-34-3	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dichloroethane, 1,2-	107-06-2	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dichloroethylene, 1,1-	75-35-4	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dichloroethylene, cis-1,2-	156-59-2	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dichloroethylene, trans-1,2-	156-60-5	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dichloromethane	75-09-2	E611C/VA	1.0	µg/L	<1.0	---	---	---	---	
Dichloropropylene, trans-1,3-	10061-02-6	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Tetrachloroethylene	127-18-4	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Trichloroethane, 1,1,1-	71-55-6	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Trichloroethylene	79-01-6	E611C/VA	0.50	µg/L	0.73	---	---	---	---	
Vinyl chloride	75-01-4	E611C/VA	0.40	µg/L	<0.40	---	---	---	---	
Volatile Organic Compounds [Fuels]										
Benzene	71-43-2	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Ethylbenzene	100-41-4	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Styrene	100-42-5	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Toluene	108-88-3	E611C/VA	0.40	µg/L	0.43	---	---	---	---	
Xylene, m+p-	179601-23-1	E611C/VA	0.40	µg/L	<0.40	---	---	---	---	



Analytical Results

Sub-Matrix: Water					Client sample ID	WLNQ EOP	----	----	----	----
(Matrix: Water)					Client sampling date / time	24-Jun-2024 12:02	---	---	---	---
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4895-001	-----	-----	-----	-----	
Result						---	---	---	---	
Volatile Organic Compounds [Fuels]										
Xylene, o-	95-47-6	E611C/VA	0.30	µg/L	<0.30	---	---	---	---	
Xylenes, total	1330-20-7	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Volatile Organic Compounds [THMs]										
Bromodichloromethane	75-27-4	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Bromoform	75-25-2	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Chloroform	67-66-3	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Dibromochloromethane	124-48-1	E611C/VA	0.50	µg/L	<0.50	---	---	---	---	
Hydrocarbons										
EPH (C10-C19)	---	E601A/VA	250	µg/L	<250	---	---	---	---	
EPH (C19-C32)	---	E601A/VA	250	µg/L	<250	---	---	---	---	
VHw (C6-C10)	---	E581.VH+F1/ VA	100	µg/L	<100	---	---	---	---	
HEPHw	---	EC600A/VA	250	µg/L	<250	---	---	---	---	
LEPHw	---	EC600A/VA	250	µg/L	<250	---	---	---	---	
VPHw	---	EC580A/VA	100	µg/L	<100	---	---	---	---	
Hydrocarbons Surrogates										
Bromobenzotrifluoride, 2- (EPH surrogate)	392-83-6	E601A/VA	1.0	%	84.4	---	---	---	---	
Dichlorotoluene, 3,4-	95-75-0	E581.VH+F1/ VA	1.0	%	110	---	---	---	---	
Volatile Organic Compounds Surrogates										
Bromofluorobenzene, 4-	460-00-4	E611C/VA	1.0	%	85.6	---	---	---	---	
Difluorobenzene, 1,4-	540-36-3	E611C/VA	1.0	%	103	---	---	---	---	
Polycyclic Aromatic Hydrocarbons										
Acenaphthene	83-32-9	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Acenaphthylene	208-96-8	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Acridine	260-94-6	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Anthracene	120-12-7	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Benz(a)anthracene	56-55-3	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Benzo(a)pyrene	50-32-8	E641A/VA	0.0050	µg/L	<0.0050	---	---	---	---	
Benzo(b+)fluoranthene	n/a	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	



Analytical Results

Sub-Matrix: Water					Client sample ID	W LNG EOP	----	----	----	----
(Matrix: Water)					Client sampling date / time	24-Jun-2024 12:02	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4895-001	-----	-----	-----	-----	
					Result	---	---	---	---	
Polycyclic Aromatic Hydrocarbons										
Benzo(b+j+k)fluoranthene	n/a	E641A/VA	0.015	µg/L	<0.015	---	---	---	---	
Benzo(g,h,i)perylene	191-24-2	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Benzo(k)fluoranthene	207-08-9	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Chrysene	218-01-9	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Dibenz(a,h)anthracene	53-70-3	E641A/VA	0.0050	µg/L	<0.0050	---	---	---	---	
Fluoranthene	206-44-0	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Fluorene	86-73-7	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Indeno(1,2,3-c,d)pyrene	193-39-5	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Methylnaphthalene, 1-	90-12-0	E641A/VA	0.010	µg/L	0.013	---	---	---	---	
Methylnaphthalene, 2-	91-57-6	E641A/VA	0.010	µg/L	0.015	---	---	---	---	
Naphthalene	91-20-3	E641A/VA	0.050	µg/L	0.097	---	---	---	---	
Phenanthrene	85-01-8	E641A/VA	0.020	µg/L	<0.020	---	---	---	---	
Pyrene	129-00-0	E641A/VA	0.010	µg/L	<0.010	---	---	---	---	
Quinoline	91-22-5	E641A/VA	0.050	µg/L	<0.050	---	---	---	---	
Polycyclic Aromatic Hydrocarbons Surrogates										
Chrysene-d12	1719-03-5	E641A/VA	0.1	%	100	---	---	---	---	
Naphthalene-d8	1146-65-2	E641A/VA	0.1	%	99.5	---	---	---	---	
Phenanthrene-d10	1517-22-2	E641A/VA	0.1	%	102	---	---	---	---	
Glycols										
Diethylene glycol	111-46-6	E680E/VA	5.0	mg/L	<5.0	---	---	---	---	
Ethylene glycol	107-21-1	E680E/VA	5.0	mg/L	<5.0	---	---	---	---	
Propylene glycol, 1,2-	57-55-6	E680E/VA	5.0	mg/L	<5.0	---	---	---	---	
Triethylene glycol	112-27-6	E680E/VA	5.0	mg/L	<5.0	---	---	---	---	
Glycols, total (EG+DEG+PG)	----	E680E/VA	10	mg/L	<10	---	---	---	---	
Glycols Surrogates										
Propanediol, 1,3-	504-63-2	E680E/VA	1.0	%	101	---	---	---	---	

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

<p>Work Order : VA24B4895</p> <p>Client : Triton Environmental Consultants Ltd.</p> <p>Contact : [REDACTED]</p> <p>Address : [REDACTED]</p> <p>Telephone : [REDACTED]</p> <p>Project : 11964</p> <p>PO : 11964 - Task 30 - Phase 3C-4C</p> <p>C-O-C number : ----</p> <p>Sampler : ----</p> <p>Site : Water Analysis</p> <p>Quote number : VA23-TRIT100-012_V2</p> <p>No. of samples received : 1</p> <p>No. of samples analysed : 1</p>	<p>Page : 1 of 14</p> <p>Laboratory : ALS Environmental - Vancouver</p> <p>Account Manager : [REDACTED]</p> <p>Address : [REDACTED]</p> <p>Telephone : [REDACTED]</p> <p>Date Samples Received : 24-Jun-2024 17:50</p> <p>Issue Date : 26-Jun-2024 16:44</p>
---	---

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)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.



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 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	
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) WLNG EOP	E562	24-Jun-2024	26-Jun-2024	28 days	2 days	✔	26-Jun-2024	28 days	2 days	✔
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) WLNG EOP	E298	24-Jun-2024	24-Jun-2024	28 days	0 days	✔	25-Jun-2024	28 days	1 days	✔
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE WLNG EOP	E235.Br-L	24-Jun-2024	24-Jun-2024	28 days	0 days	✔	24-Jun-2024	28 days	0 days	✔
Anions and Nutrients : Chloride in Water by IC										
HDPE WLNG EOP	E235.Cl	24-Jun-2024	24-Jun-2024	28 days	0 days	✔	24-Jun-2024	28 days	0 days	✔
Anions and Nutrients : Fluoride in Water by IC										
HDPE WLNG EOP	E235.F	24-Jun-2024	24-Jun-2024	28 days	0 days	✔	24-Jun-2024	28 days	0 days	✔
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE WLNG EOP	E235.NO3-L	24-Jun-2024	24-Jun-2024	3 days	0 days	✔	24-Jun-2024	3 days	0 days	✔
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE WLNG EOP	E235.NO2-L	24-Jun-2024	24-Jun-2024	3 days	0 days	✔	24-Jun-2024	3 days	0 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	
Anions and Nutrients : Sulfate in Water by IC										
HDPE WLNG EOP	E235.SO4	24-Jun-2024	24-Jun-2024	28 days	0 days	✓	24-Jun-2024	28 days	0 days	✓
Anions and Nutrients : Total Nitrogen by Colourimetry										
Amber glass total (sulfuric acid) WLNG EOP	E366	24-Jun-2024	24-Jun-2024	28 days	0 days	✓	25-Jun-2024	28 days	1 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) WLNG EOP	E372-U	24-Jun-2024	24-Jun-2024	28 days	0 days	✓	25-Jun-2024	28 days	1 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial - dissolved (lab preserved) WLNG EOP	E509	24-Jun-2024	25-Jun-2024	28 days	1 days	✓	25-Jun-2024	28 days	1 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) WLNG EOP	E421	24-Jun-2024	25-Jun-2024	180 days	1 days	✓	25-Jun-2024	180 days	1 days	✓
Field Tests : Field pH,EC,Salinity, TDS, Cl2,CIO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial - total (lab preserved) WLNG EOP	EF001	24-Jun-2024	----	----	----		25-Jun-2024	----	1 days	
Glycols : Glycols (4 analytes) by GC-FID										
Glass vial WLNG EOP	E680E	24-Jun-2024	25-Jun-2024	7 days	1 days	✓	25-Jun-2024	40 days	0 days	✓
Hydrocarbons : BC PHCs - EPH by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate) WLNG EOP	E601A	24-Jun-2024	24-Jun-2024	14 days	0 days	✓	25-Jun-2024	40 days	1 days	✓
Hydrocarbons : VH and F1 by Headspace GC-FID										
Glass vial (sodium bisulfate) WLNG EOP	E581.VH+F1	24-Jun-2024	25-Jun-2024	14 days	1 days	✓	25-Jun-2024	14 days	1 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		
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)											
Amber glass dissolved (sulfuric acid) WLNG EOP	E358-L	24-Jun-2024	24-Jun-2024	28 days	0 days	✓	24-Jun-2024	28 days	0 days	✓	
Physical Tests : Alkalinity Species by Titration											
HDPE WLNG EOP	E290	24-Jun-2024	24-Jun-2024	14 days	0 days	✓	25-Jun-2024	14 days	1 days	✓	
Physical Tests : TDS by Gravimetry											
HDPE WLNG EOP	E162	24-Jun-2024	----	----	----		24-Jun-2024	7 days	0 days	✓	
Physical Tests : TSS by Gravimetry											
HDPE WLNG EOP	E160	24-Jun-2024	----	----	----		24-Jun-2024	7 days	0 days	✓	
Polycyclic Aromatic Hydrocarbons : PAHs in Water by Hexane LVI GC-MS											
Amber glass/Teflon lined cap (sodium bisulfate) WLNG EOP	E641A	24-Jun-2024	24-Jun-2024	14 days	0 days	✓	25-Jun-2024	40 days	0 days	✓	
Speciated Metals : Total Hexavalent Chromium (Cr VI) by IC											
UV-inhibited HDPE - total (sodium hydroxide) WLNG EOP	E532	24-Jun-2024	----	----	----		24-Jun-2024	28 days	0 days	✓	
Total Metals : Total Mercury in Water by CVAAS											
Glass vial - total (lab preserved) WLNG EOP	E508	24-Jun-2024	25-Jun-2024	28 days	1 days	✓	25-Jun-2024	28 days	1 days	✓	
Total Metals : Total Metals in Water by CRC ICPMS											
HDPE - total (lab preserved) WLNG EOP	E420	24-Jun-2024	25-Jun-2024	180 days	1 days	✓	25-Jun-2024	180 days	1 days	✓	
Total Sulfides : Total Sulfide by Colourimetry (Automated Flow)											
HDPE total (zinc acetate+sodium hydroxide) WLNG EOP	E395	24-Jun-2024	----	----	----		25-Jun-2024	7 days	1 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	
Volatile Organic Compounds : VOCs (BC List) by Headspace GC-MS										
Glass vial (sodium bisulfate) WLNG EOP	E611C	24-Jun-2024	25-Jun-2024	14 days	1 days	✔	25-Jun-2024	14 days	1 days	✔

Legend & Qualifier Definitions

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 (%)		
			QC	Regular	Actual	Expected	Evaluation
Analytical Methods							
Laboratory Duplicates (DUP)							
Alkalinity Species by Titration	E290	1511762	1	8	12.5	5.0	✔
Ammonia by Fluorescence	E298	1511683	1	1	100.0	5.0	✔
Bromide in Water by IC (Low Level)	E235.Br-L	1511758	1	3	33.3	5.0	✔
Chloride in Water by IC	E235.Cl	1511757	1	8	12.5	5.0	✔
Dissolved Mercury in Water by CVAAS	E509	1513872	1	1	100.0	5.0	✔
Dissolved Metals in Water by CRC ICPMS	E421	1512408	1	2	50.0	5.0	✔
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1511680	1	1	100.0	5.0	✔
Fluoride in Water by IC	E235.F	1511756	1	8	12.5	5.0	✔
Glycols (4 analytes) by GC-FID	E680E	1513098	1	5	20.0	5.0	✔
Nitrate in Water by IC (Low Level)	E235.NO3-L	1511759	1	14	7.1	5.0	✔
Nitrite in Water by IC (Low Level)	E235.NO2-L	1511760	1	14	7.1	5.0	✔
Phenols (4AAP) in Water by Colorimetry	E562	1514752	1	14	7.1	5.0	✔
Sulfate in Water by IC	E235.SO4	1511754	1	14	7.1	5.0	✔
TDS by Gravimetry	E162	1511811	1	1	100.0	5.0	✔
Total Hexavalent Chromium (Cr VI) by IC	E532	1511793	1	1	100.0	5.0	✔
Total Mercury in Water by CVAAS	E508	1513874	1	1	100.0	5.0	✔
Total Metals in Water by CRC ICPMS	E420	1511832	1	1	100.0	5.0	✔
Total Nitrogen by Colourimetry	E366	1511681	1	1	100.0	5.0	✔
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1511682	1	1	100.0	5.0	✔
Total Sulfide by Colourimetry (Automated Flow)	E395	1512857	1	3	33.3	5.0	✔
TSS by Gravimetry	E160	1511813	1	1	100.0	5.0	✔
VH and F1 by Headspace GC-FID	E581.VH+F1	1511925	1	1	100.0	5.0	✔
VOCs (BC List) by Headspace GC-MS	E611C	1511926	1	1	100.0	5.0	✔
Laboratory Control Samples (LCS)							
Alkalinity Species by Titration	E290	1511762	1	8	12.5	5.0	✔
Ammonia by Fluorescence	E298	1511683	1	1	100.0	5.0	✔
BC PHCs - EPH by GC-FID	E601A	1511707	1	5	20.0	5.0	✔
Bromide in Water by IC (Low Level)	E235.Br-L	1511758	1	3	33.3	5.0	✔
Chloride in Water by IC	E235.Cl	1511757	1	8	12.5	5.0	✔
Dissolved Mercury in Water by CVAAS	E509	1513872	1	1	100.0	5.0	✔
Dissolved Metals in Water by CRC ICPMS	E421	1512408	1	2	50.0	5.0	✔
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1511680	1	1	100.0	5.0	✔
Fluoride in Water by IC	E235.F	1511756	1	8	12.5	5.0	✔
Glycols (4 analytes) by GC-FID	E680E	1513098	1	5	20.0	5.0	✔
Nitrate in Water by IC (Low Level)	E235.NO3-L	1511759	1	14	7.1	5.0	✔
Nitrite in Water by IC (Low Level)	E235.NO2-L	1511760	1	14	7.1	5.0	✔



Matrix: **Water**

Evaluation: * = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
Analytical Methods							
Laboratory Control Samples (LCS) - Continued							
PAHs in Water by Hexane LVI GC-MS	E641A	1511706	1	5	20.0	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	1514752	1	14	7.1	5.0	✓
Sulfate in Water by IC	E235.SO4	1511754	1	14	7.1	5.0	✓
TDS by Gravimetry	E162	1511811	1	1	100.0	5.0	✓
Total Hexavalent Chromium (Cr VI) by IC	E532	1511793	1	1	100.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1513874	1	1	100.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1511832	1	1	100.0	5.0	✓
Total Nitrogen by Colourimetry	E366	1511681	1	1	100.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1511682	1	1	100.0	5.0	✓
Total Sulfide by Colourimetry (Automated Flow)	E395	1512857	1	3	33.3	5.0	✓
TSS by Gravimetry	E160	1511813	1	1	100.0	5.0	✓
VH and F1 by Headspace GC-FID	E581.VH+F1	1511925	1	1	100.0	5.0	✓
VOCs (BC List) by Headspace GC-MS	E611C	1511926	1	1	100.0	5.0	✓
Method Blanks (MB)							
Alkalinity Species by Titration	E290	1511762	1	8	12.5	5.0	✓
Ammonia by Fluorescence	E298	1511683	1	1	100.0	5.0	✓
BC PHCs - EPH by GC-FID	E601A	1511707	1	5	20.0	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	1511758	1	3	33.3	5.0	✓
Chloride in Water by IC	E235.Cl	1511757	1	8	12.5	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1513872	1	1	100.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1512408	1	2	50.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1511680	1	1	100.0	5.0	✓
Fluoride in Water by IC	E235.F	1511756	1	8	12.5	5.0	✓
Glycols (4 analytes) by GC-FID	E680E	1513098	1	5	20.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1511759	1	14	7.1	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1511760	1	14	7.1	5.0	✓
PAHs in Water by Hexane LVI GC-MS	E641A	1511706	1	5	20.0	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	1514752	1	14	7.1	5.0	✓
Sulfate in Water by IC	E235.SO4	1511754	1	14	7.1	5.0	✓
TDS by Gravimetry	E162	1511811	1	1	100.0	5.0	✓
Total Hexavalent Chromium (Cr VI) by IC	E532	1511793	1	1	100.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1513874	1	1	100.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1511832	1	1	100.0	5.0	✓
Total Nitrogen by Colourimetry	E366	1511681	1	1	100.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1511682	1	1	100.0	5.0	✓
Total Sulfide by Colourimetry (Automated Flow)	E395	1512857	1	3	33.3	5.0	✓
TSS by Gravimetry	E160	1511813	1	1	100.0	5.0	✓
VH and F1 by Headspace GC-FID	E581.VH+F1	1511925	1	1	100.0	5.0	✓
VOCs (BC List) by Headspace GC-MS	E611C	1511926	1	1	100.0	5.0	✓



Matrix: **Water**

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

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
<i>Analytical Methods</i>							
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1511683	0	1	0.0	5.0	✘
Bromide in Water by IC (Low Level)	E235.Br-L	1511758	1	3	33.3	5.0	✔
Chloride in Water by IC	E235.Cl	1511757	1	8	12.5	5.0	✔
Dissolved Mercury in Water by CVAAS	E509	1513872	0	1	0.0	5.0	✘
Dissolved Metals in Water by CRC ICPMS	E421	1512408	1	2	50.0	5.0	✔
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1511680	0	1	0.0	5.0	✘
Fluoride in Water by IC	E235.F	1511756	1	8	12.5	5.0	✔
Nitrate in Water by IC (Low Level)	E235.NO3-L	1511759	1	14	7.1	5.0	✔
Nitrite in Water by IC (Low Level)	E235.NO2-L	1511760	1	14	7.1	5.0	✔
Phenols (4AAP) in Water by Colorimetry	E562	1514752	1	14	7.1	5.0	✔
Sulfate in Water by IC	E235.SO4	1511754	1	14	7.1	5.0	✔
Total Hexavalent Chromium (Cr VI) by IC	E532	1511793	0	1	0.0	5.0	✘
Total Mercury in Water by CVAAS	E508	1513874	0	1	0.0	5.0	✘
Total Metals in Water by CRC ICPMS	E420	1511832	0	1	0.0	5.0	✘
Total Nitrogen by Colourimetry	E366	1511681	0	1	0.0	5.0	✘
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1511682	0	1	0.0	5.0	✘
Total Sulfide by Colourimetry (Automated Flow)	E395	1512857	1	3	33.3	5.0	✔
VH and F1 by Headspace GC-FID	E581.VH+F1	1511925	0	1	0.0	5.0	✘
VOCs (BC List) by Headspace GC-MS	E611C	1511926	1	1	100.0	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
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.
Bromide in Water by IC (Low Level)	E235.Br-L 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 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 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 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 ALS Environmental - Vancouver	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 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 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.



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
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)
Dissolved Organic Carbon by Combustion (Low Level)	E358-L 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 ₂ . 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 Nitrogen by Colourimetry	E366 ALS Environmental - Vancouver	Water	Chinchilla Scientific Nitrate Method, 2011	Following digestion, total nitrogen is determined colourimetrically using a discrete analyzer utilizing the vanadium chloride reduction method. This method of analysis is approved under US EPA 40 CFR Part 136 (May 2021).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U 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 Sulfide by Colourimetry (Automated Flow)	E395 ALS Environmental - Vancouver	Water	APHA 4500 -S E-Auto-Colorimetry	Sulfide is determined using the gas dialysis automated methylene blue colourimetric method. Results expressed "as H ₂ S" if reported represent the maximum possible H ₂ S concentration based on the total sulfide concentration in the sample. The H ₂ S calculation converts Total Sulphide as (S ₂ ⁻) and reports it as Total Sulphide as (H ₂ S)
Total Metals in Water by CRC ICPMS	E420 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. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Metals in Water by CRC ICPMS	E421 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. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Mercury in Water by CVAAS	E508 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 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.



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Total Hexavalent Chromium (Cr VI) by IC	E532 ALS Environmental - Vancouver	Water	APHA 3500-Cr C (Ion Chromatography)	Hexavalent Chromium is measured by Ion chromatography-Post column reaction and UV detection. Results are based on an un-filtered, field-preserved sample.
Phenols (4AAP) in Water by Colorimetry	E562 ALS Environmental - Edmonton	Water	EPA 9066	This automated method is based on the distillation of phenol and subsequent reaction of the distillate with alkaline ferricyanide (K ₃ Fe(CN) ₆) and 4-amino-antipyrine (4-AAP) to form a red complex which is measured colorimetrically.
VH and F1 by Headspace GC-FID	E581.VH+F1 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. 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 ALS Environmental - Vancouver	Water	BC MOE Lab Manual	Sample extracts are analyzed by GC-FID for BC hydrocarbon fractions.
VOCs (BC List) by Headspace GC-MS	E611C 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. Total Xylenes is the sum of m,p-Xylene & o-Xylene. Total BTEX is the sum of Benzene, Toluene, Ethylbenzene, & Total Xylenes. Total BTEX+Styrene is the sum of Total BTEX & Styrene. Total Trihalomethanes [THMs] is the sum of Bromodichloromethane, Bromoform, Chloroform, & Dibromochloromethane.
PAHs in Water by Hexane LVI GC-MS	E641A ALS Environmental - Vancouver	Water	EPA 8270E (mod)	Polycyclic Aromatic Hydrocarbons (PAHs) are analyzed by large volume injection (LVI) GC-MS.
Glycols (4 analytes) by GC-FID	E680E ALS Environmental - Vancouver	Water	EPA 8015D (mod)	Derivatized glycols are analyzed by GC-FID.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Vancouver	Water	APHA 2340B	"Hardness (as CaCO ₃), dissolved" is calculated from the sum of dissolved 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.



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
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.
Un-ionized Total Hydrogen Sulfide (calculated)	EC395 ALS Environmental - Vancouver	Water	APHA 4500 -S H	Un-ionized sulfide is calculated using results from total sulfide analysis, pH, temperature, and ionic strength of the sample. Calculation of un-ionized sulfide using total sulfide concentrations may be biased high due to particulate forms of sulfide measured during total sulfide testing.
Total Trivalent Chromium (Cr III) by Calculation	EC535 ALS Environmental - Vancouver	Water	APHA 3030B/6020A/EPA 7196A (mod)	Chromium (III)-Total is calculated as the difference between the total chromium and the total hexavalent chromium (Cr(VI)) results. The Limit of Reporting for Chromium (III) varies as a function of the test results.
VPH: VH-BTEX-Styrene	EC580A ALS Environmental - Vancouver	Water	BC MOE Lab Manual (VPH in Water and Solids) (mod)	Volatile Petroleum Hydrocarbons (VPH) is calculated as follows: VPHw = Volatile Hydrocarbons (VH C6-C10) minus benzene, toluene, ethylbenzene, xylenes (BTEX) and styrene.
LEPH and HEPH: EPH-PAH	EC600A ALS Environmental - Vancouver	Water	BC MOE Lab Manual (LEPH and HEPH)	Light Extractable Petroleum Hydrocarbons (LEPH) and Heavy Extractable Petroleum Hydrocarbons (HEPH) are calculated as follows: LEPH = Extractable Petroleum Hydrocarbons (EPH10-19) minus Acenaphthene, Acridine, Anthracene, Fluorene, Naphthalene and Phenanthrene; HEPH = Extractable Petroleum Hydrocarbons (EPH19-32) minus Benz(a)anthracene, Benzo(a)pyrene, Fluoranthene, and Pyrene.
Field pH,EC,Salinity, TDS, Cl ₂ ,ClO ₂ ,ORP,DO, Turbidity,T,T-P,o-PO ₄ ,NH ₃ ,Chloramine	EF001 ALS Environmental - Vancouver	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl ₂ ,ClO ₂ ,ORP,DO, Turbidity,T,T-P,o-PO ₄ ,NH ₃ or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

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.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Vancouver	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Nitrogen in water	EP366 ALS Environmental - Vancouver	Water	APHA 4500-P J (mod)	Samples for total nitrogen analysis are digested using a heated persulfate digestion. Nitrogen compounds are converted to nitrate in this digestion.
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Vancouver	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.



<i>Preparation Methods</i>	<i>Method / Lab</i>	<i>Matrix</i>	<i>Method Reference</i>	<i>Method Descriptions</i>
Dissolved Metals Water Filtration	EP421 ALS Environmental - Vancouver	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Vancouver	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.
VOCs Preparation for Headspace Analysis	EP581 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 the GC/MS-FID system.
PHCs and PAHs Hexane Extraction	EP601 ALS Environmental - Vancouver	Water	EPA 3511 (mod)	Petroleum Hydrocarbons (PHCs) and Polycyclic Aromatic Hydrocarbons (PAHs) are extracted using a hexane liquid-liquid extraction.
Glycols Extraction and Derivatization (BC Only)	EP680E ALS Environmental - Vancouver	Water	EPA 8015D (mod)	Aqueous sample is derivatized and extracted with organic solvent.

QUALITY CONTROL REPORT

Work Order : **VA24B4895**

Client : Triton Environmental Consultants Ltd.

Contact : [REDACTED]

Address : [REDACTED]

Telephone : [REDACTED]

Project : 11964

PO : 11964 - Task 30 - Phase 3C-4C

C-O-C number : ----

Sampler : ----

Site : Water Analysis

Quote number : VA23-TRIT100-012_V2

No. of samples received : 1

No. of samples analysed : 1

Page : 1 of 22

Laboratory : ALS Environmental - Vancouver

Account Manager : [REDACTED]

Address : [REDACTED]

Telephone : [REDACTED]

Date Samples Received : 24-Jun-2024 17:50

Date Analysis Commenced : 24-Jun-2024

Issue Date : 26-Jun-2024 16:44

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
[REDACTED]	Laboratory Analyst	Edmonton Inorganics, Edmonton, Alberta
[REDACTED]	Account Manager Assistant	Vancouver Administration, Burnaby, British Columbia
[REDACTED]	Supervisor - Metals ICP Instrumentation	Vancouver Metals, Burnaby, British Columbia
[REDACTED]	Lab Analyst	Vancouver Metals, Burnaby, British Columbia
[REDACTED]	Lab Assistant	Vancouver Inorganics, Burnaby, British Columbia
[REDACTED]	Team Leader - Metals	Vancouver Metals, Burnaby, British Columbia
[REDACTED]	Team Leader - Metals	Vancouver Organics, Burnaby, British Columbia
[REDACTED]	Analyst	Vancouver Metals, Burnaby, British Columbia
[REDACTED]	Supervisor - Water Quality Instrumentation	Vancouver Inorganics, Burnaby, British Columbia



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: 1511762)											
VA24B4879-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	15.2	14.9	1.34%	20%	----
Physical Tests (QC Lot: 1511811)											
VA24B4895-001	WLNG EOP	Solids, total dissolved [TDS]	----	E162	13	mg/L	100	89	11	Diff <2x LOR	----
Physical Tests (QC Lot: 1511813)											
VA24B4895-001	WLNG EOP	Solids, total suspended [TSS]	----	E160	3.0	mg/L	<3.0	<3.0	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1511681)											
VA24B4895-001	WLNG EOP	Nitrogen, total	7727-37-9	E366	0.030	mg/L	0.510	0.519	1.68%	20%	----
Anions and Nutrients (QC Lot: 1511682)											
VA24B4895-001	WLNG EOP	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0273	0.0276	0.801%	20%	----
Anions and Nutrients (QC Lot: 1511683)											
VA24B4895-001	WLNG EOP	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0732	0.0721	1.48%	20%	----
Anions and Nutrients (QC Lot: 1511754)											
VA24B4181-001	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: 1511756)											
VA24B4867-001	Anonymous	Fluoride	16984-48-8	E235.F	0.020	mg/L	<0.020	<0.020	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1511757)											
VA24B4867-001	Anonymous	Chloride	16887-00-6	E235.Cl	0.50	mg/L	0.93	0.93	0.003	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1511758)											
VA24B4867-001	Anonymous	Bromide	24959-67-9	E235.Br-L	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1511759)											
VA24B4867-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	0.0124	0.0133	0.0009	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1511760)											
VA24B4867-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1511680)											
VA24B4895-001	WLNG EOP	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	3.04	3.02	0.02	Diff <2x LOR	----
Total Sulfides (QC Lot: 1512857)											
CG2408406-001	Anonymous	Sulfide, total (as S)	18496-25-8	E395	0.0015	mg/L	0.0409	0.0413	1.02%	20%	----
Total Metals (QC Lot: 1511832)											
VA24B4895-001	WLNG EOP	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0220	0.0228	0.0008	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00051	0.00051	0.000007	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: 1511832) - continued											
VA24B4895-001	WLNQ EOP	Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00088	0.00094	0.00006	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.00338	0.00336	0.530%	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	0.0002	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	0.0000062	0.0000012	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	11.6	11.7	1.21%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000031	0.000031	0.0000004	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.000050	mg/L	<0.000050	<0.000050	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	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.581	0.591	1.68%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0116	0.0116	0.806%	20%	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	1.11	1.14	2.23%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0307	0.0317	3.17%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.00472	0.00477	1.10%	20%	----
		Nickel, total	7440-02-0	E420	0.000050	mg/L	<0.000050	<0.000050	0	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	6.91	7.08	2.46%	20%	----
		Rubidium, total	7440-17-7	E420	0.000020	mg/L	0.0108	0.0115	6.28%	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	4.57	4.80	4.90%	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	15.9	16.1	1.36%	20%	----
		Strontium, total	7440-24-6	E420	0.000020	mg/L	0.0479	0.0495	3.23%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	1.22	1.26	0.04	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	0.000040	0.000042	0.000002	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	0.000030	mg/L	<0.000030	<0.000030	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	0.000112	0.000114	1.74%	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 (QC Lot: 1511832) - continued											
VA24B4895-001	WLNG EOP	Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00071	0.00072	0.00001	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Total Metals (QC Lot: 1513874)											
VA24B4895-001	WLNG EOP	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1512408)											
VA24B4848-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	7.8 µg/L	0.0076	0.0002	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.77 µg/L	0.00075	0.00002	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.87 µg/L	0.00085	0.00002	Diff <2x LOR	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	93.2 µg/L	0.0943	1.12%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000100	mg/L	<0.100 µg/L	<0.000100	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.050 µg/L	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	56 µg/L	0.056	0.000003	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0722 µg/L	0.0000704	2.49%	20%	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	102000 µg/L	102	0.420%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	0.034 µg/L	0.000032	0.000002	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.50 µg/L	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	3.52 µg/L	0.00346	1.53%	20%	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	1.48 µg/L	0.00148	0.000003	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	89 µg/L	0.089	0.0005	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.050 µg/L	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	<1.0 µg/L	<0.0010	0	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	12400 µg/L	12.3	0.175%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	2460 µg/L	2.51	1.98%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	2.68 µg/L	0.00259	3.34%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	4.49 µg/L	0.00442	0.00007	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<50 µg/L	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	3260 µg/L	3.24	0.851%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	4.64 µg/L	0.00454	2.28%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.778 µg/L	0.000748	4.00%	20%	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	6700 µg/L	6.73	0.458%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.010 µg/L	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	22500 µg/L	22.4	0.387%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	309 µg/L	0.305	1.26%	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
Dissolved Metals (QC Lot: 1512408) - continued											
VA24B4848-001	Anonymous	Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	11500 µg/L	11.4	0.640%	20%	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.20 µg/L	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	0.034 µg/L	0.000030	0.000004	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.10 µg/L	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	0.69 µg/L	0.00066	0.00003	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.30 µg/L	<0.00030	0	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.10 µg/L	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	1.54 µg/L	0.00149	3.18%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	1.09 µg/L	0.00108	0.000001	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	1.5 µg/L	0.0014	0.00007	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00020	mg/L	<0.20 µg/L	<0.00020	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1513872)											
VA24B4895-001	WLNG EOP	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Speciated Metals (QC Lot: 1511793)											
VA24B4895-001	WLNG EOP	Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
Aggregate Organics (QC Lot: 1514752)											
VA24B4575-002	Anonymous	Phenols, total (4AAP)	----	E562	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Volatile Organic Compounds (QC Lot: 1511926)											
VA24B4895-001	WLNG EOP	Benzene	71-43-2	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Bromodichloromethane	75-27-4	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Bromoform	75-25-2	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Carbon tetrachloride	56-23-5	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chlorobenzene	108-90-7	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chloroethane	75-00-3	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chloroform	67-66-3	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chloromethane	74-87-3	E611C	5.0	µg/L	<5.0	<5.0	0	Diff <2x LOR	----
		Dibromochloromethane	124-48-1	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorobenzene, 1,2-	95-50-1	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorobenzene, 1,3-	541-73-1	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorobenzene, 1,4-	106-46-7	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethane, 1,1-	75-34-3	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethane, 1,2-	107-06-2	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethylene, 1,1-	75-35-4	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethylene, cis-1,2-	156-59-2	E611C	0.50	µg/L	<0.50	<0.50	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
Volatile Organic Compounds (QC Lot: 1511926) - continued											
VA24B4895-001	WLNQ EOP	Dichloroethylene, trans-1,2-	156-60-5	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloromethane	75-09-2	E611C	1.0	µg/L	<1.0	<1.0	0	Diff <2x LOR	----
		Dichloropropane, 1,2-	78-87-5	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloropropylene, cis-1,3-	10061-01-5	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloropropylene, trans-1,3-	10061-02-6	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Ethylbenzene	100-41-4	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Styrene	100-42-5	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethane, 1,1,1,2-	630-20-6	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethane, 1,1,2,2-	79-34-5	E611C	0.20	µg/L	<0.20	<0.20	0	Diff <2x LOR	----
		Tetrachloroethylene	127-18-4	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Toluene	108-88-3	E611C	0.40	µg/L	0.43	0.42	0.01	Diff <2x LOR	----
		Trichloroethane, 1,1,1-	71-55-6	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichloroethane, 1,1,2-	79-00-5	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichloroethylene	79-01-6	E611C	0.50	µg/L	0.73	0.73	0.001	Diff <2x LOR	----
		Trichlorofluoromethane	75-69-4	E611C	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Vinyl chloride	75-01-4	E611C	0.40	µg/L	<0.40	<0.40	0	Diff <2x LOR	----
		Xylene, m+p-	179601-23-1	E611C	0.40	µg/L	<0.40	<0.40	0	Diff <2x LOR	----
Xylene, o-	95-47-6	E611C	0.30	µg/L	<0.30	<0.30	0	Diff <2x LOR	----		
Hydrocarbons (QC Lot: 1511925)											
VA24B4895-001	WLNQ EOP	VHw (C6-C10)	----	E581.VH+F1	100	µg/L	<100	<100	0.0%	30%	----
Glycols (QC Lot: 1513098)											
VA24B4734-002	Anonymous	Diethylene glycol	111-46-6	E680E	5.0	mg/L	<5.0	<5.0	0	Diff <2x LOR	----
		Ethylene glycol	107-21-1	E680E	5.0	mg/L	<5.0	<5.0	0	Diff <2x LOR	----
		Propylene glycol, 1,2-	57-55-6	E680E	5.0	mg/L	<5.0	<5.0	0	Diff <2x LOR	----
		Triethylene glycol	112-27-6	E680E	5.0	mg/L	<5.0	<5.0	0	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: 1511762)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1511811)						
Solids, total dissolved [TDS]	----	E162	10	mg/L	<10	----
Physical Tests (QCLot: 1511813)						
Solids, total suspended [TSS]	----	E160	3	mg/L	<3.0	----
Anions and Nutrients (QCLot: 1511681)						
Nitrogen, total	7727-37-9	E366	0.03	mg/L	<0.030	----
Anions and Nutrients (QCLot: 1511682)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1511683)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1511754)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1511756)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 1511757)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 1511758)						
Bromide	24959-67-9	E235.Br-L	0.05	mg/L	<0.050	----
Anions and Nutrients (QCLot: 1511759)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1511760)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1511680)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Sulfides (QCLot: 1512857)						
Sulfide, total (as S)	18496-25-8	E395	0.0015	mg/L	<0.0015	----
Total Metals (QCLot: 1511832)						
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	----



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1511832) - continued						
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	----
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	----



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1513874)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1512408)						
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	----
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	----



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1512408) - continued						
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	----
Dissolved Metals (QCLot: 1513872)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Speciated Metals (QCLot: 1511793)						
Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.0005	mg/L	<0.00050	----
Aggregate Organics (QCLot: 1514752)						
Phenols, total (4AAP)	----	E562	0.001	mg/L	<0.0010	----
Volatile Organic Compounds (QCLot: 1511926)						
Benzene	71-43-2	E611C	0.5	µg/L	<0.50	----
Bromodichloromethane	75-27-4	E611C	0.5	µg/L	<0.50	----
Bromoform	75-25-2	E611C	0.5	µg/L	<0.50	----
Carbon tetrachloride	56-23-5	E611C	0.5	µg/L	<0.50	----
Chlorobenzene	108-90-7	E611C	0.5	µg/L	<0.50	----
Chloroethane	75-00-3	E611C	0.5	µg/L	<0.50	----
Chloroform	67-66-3	E611C	0.5	µg/L	<0.50	----
Chloromethane	74-87-3	E611C	5	µg/L	<5.0	----
Dibromochloromethane	124-48-1	E611C	0.5	µg/L	<0.50	----
Dichlorobenzene, 1,2-	95-50-1	E611C	0.5	µg/L	<0.50	----
Dichlorobenzene, 1,3-	541-73-1	E611C	0.5	µg/L	<0.50	----
Dichlorobenzene, 1,4-	106-46-7	E611C	0.5	µg/L	<0.50	----
Dichloroethane, 1,1-	75-34-3	E611C	0.5	µg/L	<0.50	----
Dichloroethane, 1,2-	107-06-2	E611C	0.5	µg/L	<0.50	----
Dichloroethylene, 1,1-	75-35-4	E611C	0.5	µg/L	<0.50	----
Dichloroethylene, cis-1,2-	156-59-2	E611C	0.5	µg/L	<0.50	----
Dichloroethylene, trans-1,2-	156-60-5	E611C	0.5	µg/L	<0.50	----
Dichloromethane	75-09-2	E611C	1	µg/L	<1.0	----
Dichloropropane, 1,2-	78-87-5	E611C	0.5	µg/L	<0.50	----
Dichloropropylene, cis-1,3-	10061-01-5	E611C	0.5	µg/L	<0.50	----
Dichloropropylene, trans-1,3-	10061-02-6	E611C	0.5	µg/L	<0.50	----
Ethylbenzene	100-41-4	E611C	0.5	µg/L	<0.50	----



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Volatile Organic Compounds (QCLot: 1511926) - continued						
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611C	0.5	µg/L	<0.50	----
Styrene	100-42-5	E611C	0.5	µg/L	<0.50	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611C	0.5	µg/L	<0.50	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611C	0.2	µg/L	<0.20	----
Tetrachloroethylene	127-18-4	E611C	0.5	µg/L	<0.50	----
Toluene	108-88-3	E611C	0.4	µg/L	<0.40	----
Trichloroethane, 1,1,1,-	71-55-6	E611C	0.5	µg/L	<0.50	----
Trichloroethane, 1,1,2,-	79-00-5	E611C	0.5	µg/L	<0.50	----
Trichloroethylene	79-01-6	E611C	0.5	µg/L	<0.50	----
Trichlorofluoromethane	75-69-4	E611C	0.5	µg/L	<0.50	----
Vinyl chloride	75-01-4	E611C	0.4	µg/L	<0.40	----
Xylene, m+p-	179601-23-1	E611C	0.4	µg/L	<0.40	----
Xylene, o-	95-47-6	E611C	0.3	µg/L	<0.30	----
Hydrocarbons (QCLot: 1511707)						
EPH (C10-C19)	----	E601A	250	µg/L	<250	----
EPH (C19-C32)	----	E601A	250	µg/L	<250	----
Hydrocarbons (QCLot: 1511925)						
VHw (C6-C10)	----	E581.VH+F1	100	µg/L	<100	----
Polycyclic Aromatic Hydrocarbons (QCLot: 1511706)						
Acenaphthene	83-32-9	E641A	0.01	µg/L	<0.010	----
Acenaphthylene	208-96-8	E641A	0.01	µg/L	<0.010	----
Acridine	260-94-6	E641A	0.01	µg/L	<0.010	----
Anthracene	120-12-7	E641A	0.01	µg/L	<0.010	----
Benz(a)anthracene	56-55-3	E641A	0.01	µg/L	<0.010	----
Benzo(a)pyrene	50-32-8	E641A	0.005	µg/L	<0.0050	----
Benzo(b+j)fluoranthene	n/a	E641A	0.01	µg/L	<0.010	----
Benzo(g,h,i)perylene	191-24-2	E641A	0.01	µg/L	<0.010	----
Benzo(k)fluoranthene	207-08-9	E641A	0.01	µg/L	<0.010	----
Chrysene	218-01-9	E641A	0.01	µg/L	<0.010	----
Dibenz(a,h)anthracene	53-70-3	E641A	0.005	µg/L	<0.0050	----
Fluoranthene	206-44-0	E641A	0.01	µg/L	<0.010	----
Fluorene	86-73-7	E641A	0.01	µg/L	<0.010	----
Indeno(1,2,3-c,d)pyrene	193-39-5	E641A	0.01	µg/L	<0.010	----
Methylnaphthalene, 1-	90-12-0	E641A	0.01	µg/L	<0.010	----
Methylnaphthalene, 2-	91-57-6	E641A	0.01	µg/L	<0.010	----



Sub-Matrix: **Water**

<i>Analyte</i>	<i>CAS Number</i>	<i>Method</i>	<i>LOR</i>	<i>Unit</i>	<i>Result</i>	<i>Qualifier</i>
Polycyclic Aromatic Hydrocarbons (QCLot: 1511706) - continued						
Naphthalene	91-20-3	E641A	0.05	µg/L	<0.050	----
Phenanthrene	85-01-8	E641A	0.02	µg/L	<0.020	----
Pyrene	129-00-0	E641A	0.01	µg/L	<0.010	----
Quinoline	91-22-5	E641A	0.05	µg/L	<0.050	----
Glycols (QCLot: 1513098)						
Diethylene glycol	111-46-6	E680E	5	mg/L	<5.0	----
Ethylene glycol	107-21-1	E680E	5	mg/L	<5.0	----
Propylene glycol, 1,2-	57-55-6	E680E	5	mg/L	<5.0	----
Triethylene glycol	112-27-6	E680E	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: 1511762)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	500 mg/L	108	85.0	115	----
Physical Tests (QCLot: 1511811)									
Solids, total dissolved [TDS]	----	E162	10	mg/L	1000 mg/L	98.6	85.0	115	----
Physical Tests (QCLot: 1511813)									
Solids, total suspended [TSS]	----	E160	3	mg/L	150 mg/L	104	85.0	115	----
Anions and Nutrients (QCLot: 1511681)									
Nitrogen, total	7727-37-9	E366	0.03	mg/L	0.5 mg/L	98.6	75.0	125	----
Anions and Nutrients (QCLot: 1511682)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.05 mg/L	93.3	80.0	120	----
Anions and Nutrients (QCLot: 1511683)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	94.3	85.0	115	----
Anions and Nutrients (QCLot: 1511754)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1511756)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	99.2	90.0	110	----
Anions and Nutrients (QCLot: 1511757)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	99.0	90.0	110	----
Anions and Nutrients (QCLot: 1511758)									
Bromide	24959-67-9	E235.Br-L	0.05	mg/L	0.5 mg/L	98.9	85.0	115	----
Anions and Nutrients (QCLot: 1511759)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	99.1	90.0	110	----
Anions and Nutrients (QCLot: 1511760)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	99.2	90.0	110	----
Organic / Inorganic Carbon (QCLot: 1511680)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	106	80.0	120	----
Total Sulfides (QCLot: 1512857)									
Sulfide, total (as S)	18496-25-8	E395	0.0015	mg/L	0.08 mg/L	107	80.0	120	----
Total Metals (QCLot: 1511832)									



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: 1511832) - continued									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	108	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	104	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	108	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	103	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	100	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	98.1	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	106	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	103	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	107	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	102	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	105	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	103	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	108	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	103	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	101	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	105	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	108	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	101	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	105	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	106	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	104	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	114	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	95.3	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	107	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	105	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	100	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	104	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	101	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	104	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	103	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	104	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	106	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	105	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: 1511832) - continued									
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	102	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	101	80.0	120	----
Total Metals (QCLot: 1513874)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	95.8	80.0	120	----
Dissolved Metals (QCLot: 1512408)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	99.7	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	100.0	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	106	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	99.7	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	97.6	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	95.7	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	97.4	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	102	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	101	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	101	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	99.3	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	103	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	98.1	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	100	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	103	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	108	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	102	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	100	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	110	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	103	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	100	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	98.3	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	106	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	94.4	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	102	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	101	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	92.8	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
Dissolved Metals (QCLot: 1512408) - continued									
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	94.0	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	97.4	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	98.3	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	101	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	101	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	102	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	98.4	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	102	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	98.0	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	97.7	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	96.9	80.0	120	----
Speciated Metals (QCLot: 1511793)									
Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.0005	mg/L	0.25 mg/L	104	80.0	120	----
Aggregate Organics (QCLot: 1514752)									
Phenols, total (4AAP)	----	E562	0.001	mg/L	0.02 mg/L	97.6	85.0	115	----
Volatile Organic Compounds (QCLot: 1511926)									
Benzene	71-43-2	E611C	0.5	µg/L	100 µg/L	108	70.0	130	----
Bromodichloromethane	75-27-4	E611C	0.5	µg/L	100 µg/L	105	70.0	130	----
Bromoform	75-25-2	E611C	0.5	µg/L	100 µg/L	92.4	70.0	130	----
Carbon tetrachloride	56-23-5	E611C	0.5	µg/L	100 µg/L	108	70.0	130	----
Chlorobenzene	108-90-7	E611C	0.5	µg/L	100 µg/L	103	70.0	130	----
Chloroethane	75-00-3	E611C	0.5	µg/L	100 µg/L	107	60.0	140	----
Chloroform	67-66-3	E611C	0.5	µg/L	100 µg/L	107	70.0	130	----
Chloromethane	74-87-3	E611C	5	µg/L	100 µg/L	98.5	60.0	140	----
Dibromochloromethane	124-48-1	E611C	0.5	µg/L	100 µg/L	99.0	70.0	130	----
Dichlorobenzene, 1,2-	95-50-1	E611C	0.5	µg/L	100 µg/L	100	70.0	130	----
Dichlorobenzene, 1,3-	541-73-1	E611C	0.5	µg/L	100 µg/L	101	70.0	130	----
Dichlorobenzene, 1,4-	106-46-7	E611C	0.5	µg/L	100 µg/L	100	70.0	130	----
Dichloroethane, 1,1-	75-34-3	E611C	0.5	µg/L	100 µg/L	102	70.0	130	----
Dichloroethane, 1,2-	107-06-2	E611C	0.5	µg/L	100 µg/L	116	70.0	130	----
Dichloroethylene, 1,1-	75-35-4	E611C	0.5	µg/L	100 µg/L	102	70.0	130	----
Dichloroethylene, cis-1,2-	156-59-2	E611C	0.5	µg/L	100 µg/L	105	70.0	130	----
Dichloroethylene, trans-1,2-	156-60-5	E611C	0.5	µg/L	100 µg/L	106	70.0	130	----



Sub-Matrix: **Water**

Laboratory Control Sample (LCS) Report

Analyte	CAS Number	Method	LOR	Unit	Spike		Recovery Limits (%)		Qualifier
					Target Concentration	LCS	Low	High	
Volatile Organic Compounds (QCLot: 1511926) - continued									
Dichloromethane	75-09-2	E611C	1	µg/L	100 µg/L	108	70.0	130	----
Dichloropropane, 1,2-	78-87-5	E611C	0.5	µg/L	100 µg/L	111	70.0	130	----
Dichloropropylene, cis-1,3-	10061-01-5	E611C	0.5	µg/L	100 µg/L	120	70.0	130	----
Dichloropropylene, trans-1,3-	10061-02-6	E611C	0.5	µg/L	100 µg/L	106	70.0	130	----
Ethylbenzene	100-41-4	E611C	0.5	µg/L	100 µg/L	100	70.0	130	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611C	0.5	µg/L	100 µg/L	110	70.0	130	----
Styrene	100-42-5	E611C	0.5	µg/L	100 µg/L	104	70.0	130	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611C	0.5	µg/L	100 µg/L	98.4	70.0	130	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611C	0.2	µg/L	100 µg/L	90.1	70.0	130	----
Tetrachloroethylene	127-18-4	E611C	0.5	µg/L	100 µg/L	102	70.0	130	----
Toluene	108-88-3	E611C	0.4	µg/L	100 µg/L	97.1	70.0	130	----
Trichloroethane, 1,1,1-	71-55-6	E611C	0.5	µg/L	100 µg/L	109	70.0	130	----
Trichloroethane, 1,1,2-	79-00-5	E611C	0.5	µg/L	100 µg/L	94.8	70.0	130	----
Trichloroethylene	79-01-6	E611C	0.5	µg/L	100 µg/L	106	70.0	130	----
Trichlorofluoromethane	75-69-4	E611C	0.5	µg/L	100 µg/L	105	60.0	140	----
Vinyl chloride	75-01-4	E611C	0.4	µg/L	100 µg/L	99.5	60.0	140	----
Xylene, m+p-	179601-23-1	E611C	0.4	µg/L	200 µg/L	102	70.0	130	----
Xylene, o-	95-47-6	E611C	0.3	µg/L	100 µg/L	96.9	70.0	130	----
Hydrocarbons (QCLot: 1511707)									
EPH (C10-C19)	---	E601A	250	µg/L	6490 µg/L	106	70.0	130	----
EPH (C19-C32)	---	E601A	250	µg/L	3360 µg/L	107	70.0	130	----
Hydrocarbons (QCLot: 1511925)									
VHw (C6-C10)	---	E581.VH+F1	100	µg/L	6310 µg/L	95.1	70.0	130	----
Polycyclic Aromatic Hydrocarbons (QCLot: 1511706)									
Acenaphthene	83-32-9	E641A	0.01	µg/L	0.5 µg/L	106	60.0	130	----
Acenaphthylene	208-96-8	E641A	0.01	µg/L	0.5 µg/L	112	60.0	130	----
Acridine	260-94-6	E641A	0.01	µg/L	0.5 µg/L	105	60.0	130	----
Anthracene	120-12-7	E641A	0.01	µg/L	0.5 µg/L	110	60.0	130	----
Benz(a)anthracene	56-55-3	E641A	0.01	µg/L	0.5 µg/L	103	60.0	130	----
Benzo(a)pyrene	50-32-8	E641A	0.005	µg/L	0.5 µg/L	103	60.0	130	----
Benzo(b+j)fluoranthene	n/a	E641A	0.01	µg/L	0.5 µg/L	105	60.0	130	----
Benzo(g,h,i)perylene	191-24-2	E641A	0.01	µg/L	0.5 µg/L	116	60.0	130	----
Benzo(k)fluoranthene	207-08-9	E641A	0.01	µg/L	0.5 µg/L	100	60.0	130	----
Chrysene	218-01-9	E641A	0.01	µg/L	0.5 µg/L	104	60.0	130	----



Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Polycyclic Aromatic Hydrocarbons (QCLot: 1511706) - continued									
Dibenz(a,h)anthracene	53-70-3	E641A	0.005	µg/L	0.5 µg/L	112	60.0	130	----
Fluoranthene	206-44-0	E641A	0.01	µg/L	0.5 µg/L	106	60.0	130	----
Fluorene	86-73-7	E641A	0.01	µg/L	0.5 µg/L	104	60.0	130	----
Indeno(1,2,3-c,d)pyrene	193-39-5	E641A	0.01	µg/L	0.5 µg/L	112	60.0	130	----
Methylnaphthalene, 1-	90-12-0	E641A	0.01	µg/L	0.5 µg/L	101	60.0	130	----
Methylnaphthalene, 2-	91-57-6	E641A	0.01	µg/L	0.5 µg/L	110	60.0	130	----
Naphthalene	91-20-3	E641A	0.05	µg/L	0.5 µg/L	103	50.0	130	----
Phenanthrene	85-01-8	E641A	0.02	µg/L	0.5 µg/L	106	60.0	130	----
Pyrene	129-00-0	E641A	0.01	µg/L	0.5 µg/L	106	60.0	130	----
Quinoline	91-22-5	E641A	0.05	µg/L	0.5 µg/L	112	60.0	130	----
Glycols (QCLot: 1513098)									
Diethylene glycol	111-46-6	E680E	5	mg/L	25 mg/L	101	70.0	130	----
Ethylene glycol	107-21-1	E680E	5	mg/L	25 mg/L	102	70.0	130	----
Propylene glycol, 1,2-	57-55-6	E680E	5	mg/L	25 mg/L	102	70.0	130	----
Triethylene glycol	112-27-6	E680E	5	mg/L	25 mg/L	98.0	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 (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1511754)										
VA24B4181-002	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	106 mg/L	100 mg/L	106	75.0	125	----
Anions and Nutrients (QCLot: 1511756)										
VA24B4867-002	Anonymous	Fluoride	16984-48-8	E235.F	1.08 mg/L	1 mg/L	108	75.0	125	----
Anions and Nutrients (QCLot: 1511757)										
VA24B4867-002	Anonymous	Chloride	16887-00-6	E235.Cl	105 mg/L	100 mg/L	105	75.0	125	----
Anions and Nutrients (QCLot: 1511758)										
VA24B4867-002	Anonymous	Bromide	24959-67-9	E235.Br-L	0.544 mg/L	0.5 mg/L	109	75.0	125	----
Anions and Nutrients (QCLot: 1511759)										
VA24B4867-002	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.60 mg/L	2.5 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 1511760)										
VA24B4867-002	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.526 mg/L	0.5 mg/L	105	75.0	125	----
Total Sulfides (QCLot: 1512857)										
CG2408406-002	Anonymous	Sulfide, total (as S)	18496-25-8	E395	0.230 mg/L	0.2 mg/L	115	75.0	125	----
Dissolved Metals (QCLot: 1512408)										
VA24B4895-001	WLNG EOP	Aluminum, dissolved	7429-90-5	E421	0.198 mg/L	0.2 mg/L	99.1	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0196 mg/L	0.02 mg/L	98.2	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0207 mg/L	0.02 mg/L	103	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0195 mg/L	0.02 mg/L	97.3	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0386 mg/L	0.04 mg/L	96.4	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00972 mg/L	0.01 mg/L	97.2	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.093 mg/L	0.1 mg/L	93.2	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00384 mg/L	0.004 mg/L	95.9	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0101 mg/L	0.01 mg/L	101	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0391 mg/L	0.04 mg/L	97.8	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0195 mg/L	0.02 mg/L	97.6	70.0	130	----
		Iron, dissolved	7439-89-6	E421	2.00 mg/L	2 mg/L	100	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0191 mg/L	0.02 mg/L	95.4	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0942 mg/L	0.1 mg/L	94.2	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	0.959 mg/L	1 mg/L	95.9	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	----	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0198 mg/L	0.02 mg/L	99.1	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0396 mg/L	0.04 mg/L	99.0	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.2 mg/L	10 mg/L	102	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
Dissolved Metals (QCLot: 1512408) - continued										
VA24B4895-001	WLNG EOP	Potassium, dissolved	7440-09-7	E421	ND mg/L	----	ND	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0196 mg/L	0.02 mg/L	98.1	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0400 mg/L	0.04 mg/L	100.0	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.65 mg/L	10 mg/L	96.5	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00352 mg/L	0.004 mg/L	88.1	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	20.4 mg/L	20 mg/L	102	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0382 mg/L	0.04 mg/L	95.4	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00382 mg/L	0.004 mg/L	95.4	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0195 mg/L	0.02 mg/L	97.4	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0196 mg/L	0.02 mg/L	98.2	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0400 mg/L	0.04 mg/L	100.0	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0193 mg/L	0.02 mg/L	96.4	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00388 mg/L	0.004 mg/L	97.0	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.100 mg/L	0.1 mg/L	100	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.385 mg/L	0.4 mg/L	96.4	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0381 mg/L	0.04 mg/L	95.2	70.0	130	----
Aggregate Organics (QCLot: 1514752)										
VA24B4895-002	Anonymous	Phenols, total (4AAP)	----	E562	0.0196 mg/L	0.02 mg/L	98.2	75.0	125	----
Volatile Organic Compounds (QCLot: 1511926)										
VA24B4895-001	WLNG EOP	Benzene	71-43-2	E611C	106 µg/L	100 µg/L	106	60.0	140	----
		Bromodichloromethane	75-27-4	E611C	109 µg/L	100 µg/L	109	60.0	140	----
		Bromoform	75-25-2	E611C	88.9 µg/L	100 µg/L	88.9	60.0	140	----
		Carbon tetrachloride	56-23-5	E611C	105 µg/L	100 µg/L	105	60.0	140	----
		Chlorobenzene	108-90-7	E611C	99.8 µg/L	100 µg/L	99.8	60.0	140	----
		Chloroethane	75-00-3	E611C	79.6 µg/L	100 µg/L	79.6	50.0	150	----
		Chloroform	67-66-3	E611C	109 µg/L	100 µg/L	109	60.0	140	----
		Chloromethane	74-87-3	E611C	57.8 µg/L	100 µg/L	57.8	50.0	150	----
		Dibromochloromethane	124-48-1	E611C	99.4 µg/L	100 µg/L	99.4	60.0	140	----
		Dichlorobenzene, 1,2-	95-50-1	E611C	101 µg/L	100 µg/L	101	60.0	140	----
		Dichlorobenzene, 1,3-	541-73-1	E611C	93.1 µg/L	100 µg/L	93.1	60.0	140	----
		Dichlorobenzene, 1,4-	106-46-7	E611C	90.9 µg/L	100 µg/L	90.9	60.0	140	----
		Dichloroethane, 1,1-	75-34-3	E611C	103 µg/L	100 µg/L	103	60.0	140	----
		Dichloroethane, 1,2-	107-06-2	E611C	120 µg/L	100 µg/L	120	60.0	140	----
		Dichloroethylene, 1,1-	75-35-4	E611C	84.7 µg/L	100 µg/L	84.7	60.0	140	----
		Dichloroethylene, cis-1,2-	156-59-2	E611C	103 µg/L	100 µg/L	103	60.0	140	----
		Dichloroethylene, trans-1,2-	156-60-5	E611C	99.4 µg/L	100 µg/L	99.4	60.0	140	----
		Dichloromethane	75-09-2	E611C	106 µg/L	100 µg/L	106	60.0	140	----
		Dichloropropane, 1,2-	78-87-5	E611C	112 µg/L	100 µg/L	112	60.0	140	----
		Dichloropropylene, cis-1,3-	10061-01-5	E611C	120 µg/L	100 µg/L	120	60.0	140	----
		Dichloropropylene, trans-1,3-	10061-02-6	E611C	101 µg/L	100 µg/L	101	60.0	140	----
		Ethylbenzene	100-41-4	E611C	92.0 µg/L	100 µg/L	92.0	60.0	140	----



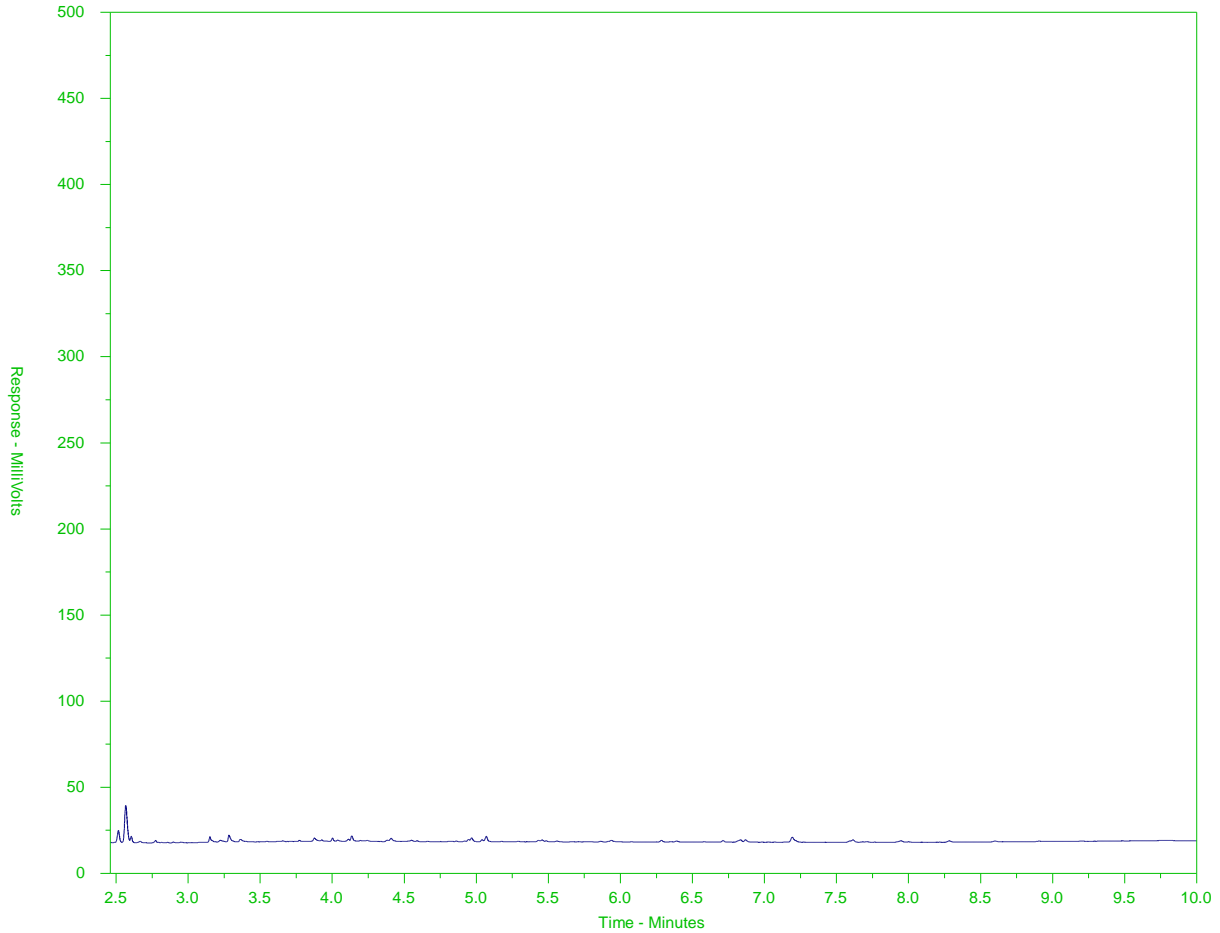
Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Volatile Organic Compounds (QCLot: 1511926) - continued										
VA24B4895-001	WLNG EOP	Methyl-tert-butyl ether [MTBE]	1634-04-4	E611C	108 µg/L	100 µg/L	108	60.0	140	----
		Styrene	100-42-5	E611C	94.6 µg/L	100 µg/L	94.6	60.0	140	----
		Tetrachloroethane, 1,1,1,2-	630-20-6	E611C	98.7 µg/L	100 µg/L	98.7	60.0	140	----
		Tetrachloroethane, 1,1,2,2-	79-34-5	E611C	88.5 µg/L	100 µg/L	88.5	60.0	140	----
		Tetrachloroethylene	127-18-4	E611C	99.2 µg/L	100 µg/L	99.2	60.0	140	----
		Toluene	108-88-3	E611C	89.2 µg/L	100 µg/L	89.2	60.0	140	----
		Trichloroethane, 1,1,1-	71-55-6	E611C	105 µg/L	100 µg/L	105	60.0	140	----
		Trichloroethane, 1,1,2-	79-00-5	E611C	92.7 µg/L	100 µg/L	92.7	60.0	140	----
		Trichloroethylene	79-01-6	E611C	105 µg/L	100 µg/L	105	60.0	140	----
		Trichlorofluoromethane	75-69-4	E611C	127 µg/L	100 µg/L	127	50.0	150	----
		Vinyl chloride	75-01-4	E611C	60.9 µg/L	100 µg/L	60.9	50.0	150	----
		Xylene, m+p-	179601-23-1	E611C	192 µg/L	200 µg/L	96.2	60.0	140	----
		Xylene, o-	95-47-6	E611C	91.6 µg/L	100 µg/L	91.6	60.0	140	----

BC EPH HYDROCARBON DISTRIBUTION REPORT



ALS Sample ID: VA24B4895-001-E601A
Client Sample ID: WLNG EOP



EPH10-19		EPH19-32	
nC10	nC19		nC32
174°C	330°C		467°C
346°F	626°F		873°F
Gasoline		Motor Oils/ Lube Oils/ Grease	
Diesel/ Jet Fuels			

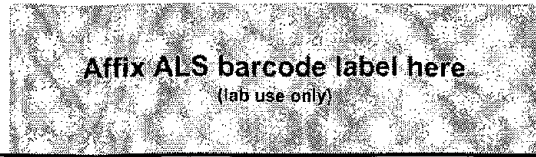
The BC EPH Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and three n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

A "-L-" in the sample ID denotes a low level sample. A "-S-" denotes a silica gel cleaned sample.

Note: This chromatogram was produced using GC conditions that are specific to the ALS Canada EPH method. Refer to the ALS Canada EPH Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

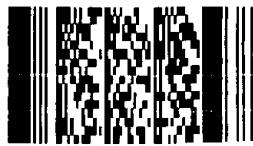


Report To Contact and company name below will appear on the final report		Report Format / Distribution		Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)					
Company:	Triton Environmental	Select Report Format: <input type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input type="checkbox"/> EDD (DIGITAL)		Regular [R] <input type="checkbox"/> Standard TAT if received by 3 pm - business days - no surcharges apply					
Contact:		Quality Control (QC) Report with Report <input type="checkbox"/> YES <input type="checkbox"/> NO		PRIORITY (Business Days)	4 day [P4-20%] <input type="checkbox"/>		EMERGENCY		
Phone:		<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked			3 day [P3-25%] <input type="checkbox"/>			1 Business day [E1 - 100%] <input checked="" type="checkbox"/>	
Street:		Select Distribution: <input type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX			2 day [P2-50%] <input type="checkbox"/>			Same Day, Weekend or Statutory holiday [E2 - 200% (Laboratory opening fees may apply)] <input type="checkbox"/>	
City/Province:		Email 1 or Fax		Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm					
Postal Code:		Email 2		For tests that can not be performed according to the service level selected, you will be contacted.					
		Email 3		Analysis Request					

Invoice To Same as Report To <input type="checkbox"/> YES <input type="checkbox"/> NO		Invoice Distribution		Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below													
Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO		Select Invoice Distribution: <input type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX															
Company:		Email 1 or Fax															
Contact:		Email 2															
Project Information		Oil and Gas Required Fields (client use)															
ALS Account # / Quote #:	VA23-TRIT100-012	AFE/Cost Center:	PO#														
Job #:	11964	Major/Minor Code:	Routing Code:														
PO / AFE:	11964 - Task 30 - Phase 3C-4C	Requisitioner:															
LSD:		Location:															

ALS Lab Work Order # (lab use only): B4895		ALS Contact:		Sampler:																	
ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)			Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Total metals + mercury	Dissolved metals + mercury	Total hexavalent chromium	Total trivalent chromium	TSS, TDS, T-Alkalinity, Anions scan (B, Cl, F, U)	Total sulfide (low) (as H2S), Unionized Sulfide (low)	Nutrients (ammonia, ammonium, total nitrogen, total phosphorus, phenols)	VOC/PH	EPH, PAH, LEPH/HEPH	DOC	Glycols	General parameters (alkalinity)	SAMPLES ON HOLD	Sample is hazardous (please provide further details)	NUMBER OF CONTAINERS
	BCR EOP					Water	R	R	R	R	R	R	R	R	R	R	R	R			15
	pH:	cond:	temp:																		
	WLNG EOP			24-June-24	12:02	Water	R	R	R	R	R	R	R	R	R	R	R	R			15
	pH: 7.57	cond: 126 µS/cm	temp: 17.6°C			Water	R	R	R	R	R	R	R	R	R	R	R	R			15
	Duplicate					Water	R	R	R	R	R	R	R	R	R	R	R	R			15
	Field Blank						R	R	R	R	R	R	R	R	R	R	R	R			15
	Trip Blank						R	R	R	R	R	R	R	R	R	R	R	R			11

Environmental Division
Vancouver
Work Order Reference
VA24B4895



Telephone : +1 604 253 4188

Drinking Water (DW) Samples¹ (client use)		Special Instructions / Specify Criteria	
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input type="checkbox"/> NO			
Are samples for human consumption/use? <input type="checkbox"/> YES <input type="checkbox"/> NO			

SAMPLE CONDITION AS RECEIVED (lab use only)			
Frozen	<input type="checkbox"/>	SIF Observations	Yes <input type="checkbox"/> No <input type="checkbox"/>
Ice Packs	<input checked="" type="checkbox"/>	Ice Cubes	<input type="checkbox"/>
Cooling initiated	<input type="checkbox"/>	Custody seal intact	Yes <input type="checkbox"/> No <input type="checkbox"/>
INITIAL COOLER TEMPERATURES °C		FINAL COOLER TEMPERATURES °C	
		5	

SHIPMENT RELEASE (client use)		INITIAL SHIPMENT RECEPTION (lab use only)		FINAL SHIPMENT RECEPTION (lab use only)	
June 24, 2024		Received by:	Date:	Received by:	Date:



**Eagle Mountain - Woodfibre Gas Pipeline Project
Waste Discharge Permit PE-110163 Report**

Reporting Week	June 17 th to June 23 rd , 2024
Report #	13
Appendix C	C-4

Woodfibre Site WTP Discharge Field Notes and Logs



FortisBC Eagle Mountain-Woodfibre Gas Pipeline

Water Discharge Authorization Water Quality Monitoring

2024-6-17-Chan-BF98B

Project Component:	Tunnel	Site Name:	WLNG Treatment Discharge
Inspection Date:	06/17/2024	Location:	WLNG
Triton QP:	Aegean Chan	Latitude/Longitude:	49.669351 -123.248439
Temperature(c):	Low 13 High 19	Permit:	PE 110136
Weather Conditions:	Overcast	Ground Conditions:	Dry

Observations

Time: 15:45:00 **Flow Volume (visual):** low

Notes: Conductivity: 348 micro siemens per cm

Odour Detected?: No **Notes:**

Unusual Colour?: No **Notes:**

Unusual Observations?: No **Notes:**

Sheen on Water?: No **Notes:**

Samples Collected - Parameters

Total Metals + Mercury	Yes	General Parameters (Alkalinity)	Yes	Other Sample:	
Dissolved Metals + Mercury	Yes	Total Sulfide, Unionized Sulfide	Yes		Glycols
TSS	Yes	Anions	Yes		
TDS	Yes	VOC/VPH	Yes	QA Samples:	N/A
Nutrients	Yes	EPH, PAH, LEPH/HEPH	Yes		Glycols
DOC	Yes	Trout LC50	N/A		

Logger Maintenance

Logger Maintenance Performed?	No	Photo of COC with Lab Signature?	Yes
Describe Logger Maintenance			

Photos



Photo: 1
Location: WLNG EOP
Description: US view



Photo: 2
Location: WLNG EOP
Description: Across view

Photos



Photo: 3
Location: WLNG EOP
Description: DS view

Sample ID	Date	Time	Sample Type	...
7-493	17-Jun-24	15:45	Water	...

Photo: 4
Location: Lab COC
Description: Lab COC

Photos

Photo:

Location:

Description:



2024-6-17-Chan-BF98B

Sign Off

Report Prepared By: Lily Chycoski

Report Reviewed:

Report Reviewer:

Professional(s) of Record:

Name:

Designation:

Designation Number:



FortisBC Eagle Mountain-Woodfibre Gas Pipeline

Water Discharge Authorization Water Quality Monitoring

2024-6-18-Chycoski-268B5

Project Component:	Tunnel	Site Name:	WLNG Treatment Discharge
Inspection Date:	06/18/2024	Location:	WLNG
Triton QP:	Lily Chycoski	Latitude/Longitude:	49.669351 -123.248439
Temperature(c):	Low 3 High 13	Permit:	PE 110136
Weather Conditions:	Overcast	Ground Conditions:	Damp

Observations

Time: 15:30:06 **Flow Volume (visual):** low

Notes: Conductivity: 314 micro siemens per cm

Odour Detected?: No **Notes:**

Unusual Colour?: No **Notes:**

Unusual Observations?: No **Notes:**

Sheen on Water?: No **Notes:**

Samples Collected - Parameters

Total Metals + Mercury	Yes	General Parameters (Alkalinity)	Yes	Other Sample:	
Dissolved Metals + Mercury	Yes	Total Sulfide, Unionized Sulfide	Yes		Glycols
TSS	Yes	Anions	Yes		
TDS	Yes	VOC/VPH	Yes	QA Samples:	N/A
Nutrients	Yes	EPH, PAH, LEPH/HEPH	Yes		Glycols
DOC	Yes	Trout LC50	N/A		

Logger Maintenance

Logger Maintenance Performed?	No	Photo of COC with Lab Signature?	Yes
Describe Logger Maintenance			

Photos



Photo: 1
Location: WLNG EOP
Description: US view



Photo: 2
Location: WLNG EOP
Description: Across view

Photos



Photo: 3
Location: WLNG EOP
Description: DS view

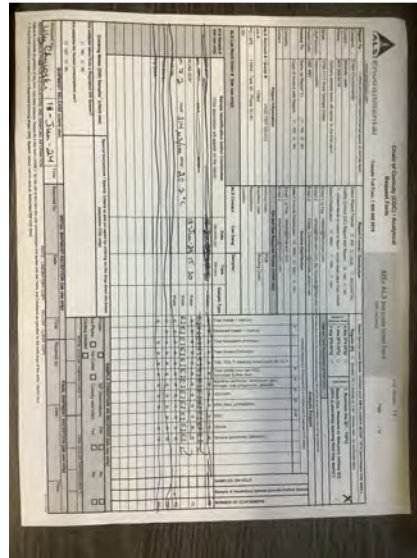


Photo: 4
Location: WLNG EOP
Description: Lab COC



2024-6-18-Chycoski-268B5

Sign Off

Report Prepared By: Lily Chycoski

Report Reviewed:

Report Reviewer:

Professional(s) of Record:

Name:

Designation:

Designation Number:



FortisBC Eagle Mountain-Woodfibre Gas Pipeline
Water Discharge Authorization Water Quality Monitoring

2024-6-19-Chan-3E0A5

Project Component:	Tunnel	Site Name:	WLNG Treatment Discharge
Inspection Date:	06/19/2024	Location:	WLNG
Triton QP:	Aegean Chan	Latitude/Longitude:	49.669351 -123.248439
Temperature(c):	Low 12 High 23	Permit:	PE 110136
Weather Conditions:	Clear	Ground Conditions:	Dry

Observations

Time: 13:43:52 **Flow Volume (visual):** low
Notes: 290 us/cm conductivity
Odour Detected?: No **Notes:**
Unusual Colour?: No **Notes:**
Unusual Observations?: No **Notes:**
Sheen on Water?: No **Notes:**

Samples Collected - Parameters

Total Metals + Mercury	Yes	General Parameters (Alkalinity)	Yes	Other Sample:	
Dissolved Metals + Mercury	Yes	Total Sulfide, Unionized Sulfide	Yes		Total chromium
TSS	Yes	Anions	Yes		
TDS	Yes	VOC/VPH	Yes	QA Samples:	Yes
Nutrients	Yes	EPH, PAH, LEPH/HEPH	Yes		Total chromium
DOC	Yes	Trout LC50	No		

Logger Maintenance

Logger Maintenance Performed? No **Photo of COC with Lab Signature?** Yes
Describe Logger Maintenance

Photos



Photo: 1
Location: WLNG EOP
Description: WLNG EOP US



Photo: 2
Location: WLNG EOP
Description: WLNG EOP Across View

Photos



Photo: 3
Location: WLNG EOP
Description: WLNG EOP DS

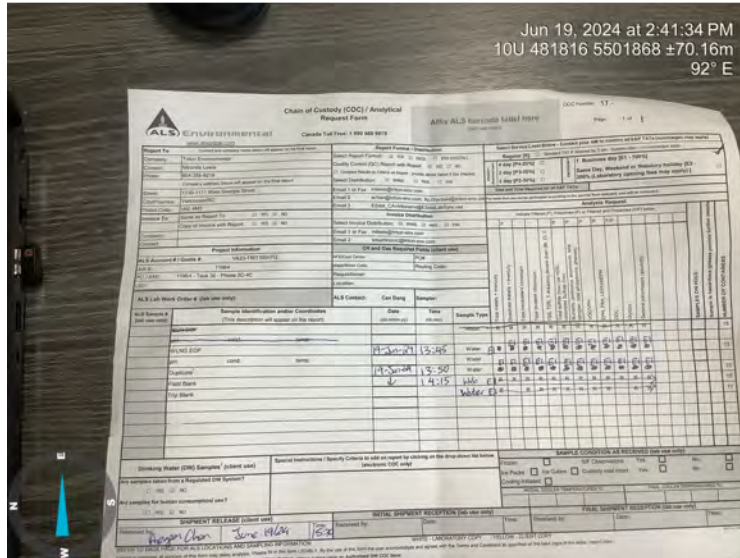


Photo: 4
Location: Lab COC
Description: Lab COC



2024-6-19-Chan-3E0A5

Sign Off

Report Prepared By: Aegean Chan

Report Reviewed:

Report Reviewer:

Professional(s) of Record:

Name:

Designation:

Designation Number:



FortisBC Eagle Mountain-Woodfibre Gas Pipeline

Water Discharge Authorization Water Quality Monitoring

2024-6-20-Chan-9B7D2

Project Component:	Tunnel	Site Name:	WLNG Treatment Discharge
Inspection Date:	06/20/2024	Location:	WLNG
Triton QP:	Aegean Chan	Latitude/Longitude:	49.669351 -123.248439
Temperature(c):	Low 12 High 27	Permit:	PE 110136
Weather Conditions:	Clear	Ground Conditions:	Dry

Observations

Time: 12:20:39 **Flow Volume (visual):** low

Notes: Conductivity 260 us/cm

Odour Detected?: No **Notes:**

Unusual Colour?: No **Notes:**

Unusual Observations?: No **Notes:**

Sheen on Water?: No **Notes:**

Samples Collected - Parameters

Total Metals + Mercury	Yes	General Parameters (Alkalinity)	Yes	Other Sample: Total hexavalent and trivalent chromium
Dissolved Metals + Mercury	Yes	Total Sulfide, Unionized Sulfide	Yes	
TSS	Yes	Anions	Yes	QA Samples: No Total hexavalent and trivalent chromium
TDS	Yes	VOC/VPH	Yes	
Nutrients	Yes	EPH, PAH, LEPH/HEPH	Yes	
DOC	Yes	Trout LC50	No	

Logger Maintenance

Logger Maintenance Performed?	No	Photo of COC with Lab Signature?	Yes
--------------------------------------	----	---	-----

Describe Logger Maintenance

Photos



Photo: 1
Location: WLNG EOP US
Description: WLNG EOP US



Photo: 2
Location: WLNG EOP Across View
Description: WLNG EOP Across View

Photos



Photo: 3
Location: WLNG EOP DS
Description: WLNG EOP DS

ALS CHAIN OF CUSTODY (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 8878

ALS AL3 barcode label here

Jun 20, 2024 at 12:59:26 PM
10U 481820 5501820 ±59.76m
97° E

ALS Sample # (30 use only)	Sample Identification and Coordinates (This description will appear on the report)	ALS Contact	Can Disp	Sampler	Date	Time	Sample Type
WLNG EOP	7.42				20 June 2024	12:25	Water

Handwritten notes: 20 June 2024 12:25, 7.42

Photo: 4
Location: Lab COC
Description: Lab COC



2024-6-20-Chan-9B7D2

Sign Off

Report Prepared By: Aegean Chan

Report Reviewed:

Report Reviewer:

Professional(s) of Record:

Name:

Designation:

Designation Number:



FortisBC Eagle Mountain-Woodfibre Gas Pipeline

Water Discharge Authorization Water Quality Monitoring

2024-6-21-Chycoski-F267A

Project Component:	Tunnel	Site Name:	WLNG Treatment Discharge
Inspection Date:	06/21/2024	Location:	WLNG
Triton QP:	Lily Chycoski	Latitude/Longitude:	49.669351 -123.248439
Temperature(c):	Low 17 High 28	Permit:	PE 110136
Weather Conditions:	Clear	Ground Conditions:	Dry

Observations

Time: 09:58:00 **Flow Volume (visual):** low

Notes: Conductivity: 285 micro siemens per cm

Odour Detected?: No **Notes:**

Unusual Colour?: No **Notes:**

Unusual Observations?: No **Notes:**

Sheen on Water?: No **Notes:**

Samples Collected - Parameters

Total Metals + Mercury	Yes	General Parameters (Alkalinity)	Yes	Other Sample: Total hexavalent chromium and total trivalent chromium, glycols
Dissolved Metals + Mercury	Yes	Total Sulfide, Unionized Sulfide	Yes	
TSS	Yes	Anions	Yes	QA Samples: No Total hexavalent chromium and total trivalent chromium, glycols
TDS	Yes	VOC/VPH	Yes	
Nutrients	Yes	EPH, PAH, LEPH/HEPH	Yes	
DOC	Yes	Trout LC50	N/A	

Logger Maintenance

Logger Maintenance Performed?	No	Photo of COC with Lab Signature?	Yes
Describe Logger Maintenance			

Photos



Photo: 1
Location: WLNG EOP
Description: US view



Photo: 2
Location: WLNG EOP
Description: Across view

Photos



Photo: 3
Location: WLNG EOP
Description: DS view

Photo: 4
Location: WLNG EOP
Description: Lab COC



2024-6-21-Chycoski-F267A

Sign Off

Report Prepared By: Lily Chycoski

Report Reviewed:

Report Reviewer:

Professional(s) of Record:

Name:

Designation:

Designation Number:



FortisBC Eagle Mountain-Woodfibre Gas Pipeline

Water Discharge Authorization Water Quality Monitoring

2024-6-24-Blanchard-7494C

Project Component:	Tunnel	Site Name:	WLNG Treatment Discharge
Inspection Date:	06/24/2024	Location:	WLNG
Triton QP:	Sam Blanchard	Latitude/Longitude:	49.669351 -123.248439
Temperature(c):	Low 9 High 20	Permit:	PE 110136
Weather Conditions:	Overcast	Ground Conditions:	Damp

Observations

Time: 12:02:00 **Flow Volume (visual):** low

Notes:

Odour Detected?: No **Notes:**

Unusual Colour?: No **Notes:**

Unusual Observations?: No **Notes:**

Sheen on Water?: No **Notes:**

Samples Collected - Parameters

Total Metals + Mercury	Yes	General Parameters (Alkalinity)	Yes	Other Sample: Total hexavalent chromium and total trivalent chromium, glycols
Dissolved Metals + Mercury	Yes	Total Sulfide, Unionized Sulfide	Yes	
TSS	Yes	Anions	Yes	QA Samples: No Total hexavalent chromium and total trivalent chromium, glycols
TDS	Yes	VOC/VPH	Yes	
Nutrients	Yes	EPH, PAH, LEPH/HEPH	Yes	
DOC	Yes	Trout LC50	N/A	

Logger Maintenance

Logger Maintenance Performed?	No	Photo of COC with Lab Signature?	Yes
Describe Logger Maintenance			

Photos



Photo: 1
Location: WLNG Treatment Discharge
Description: Treatment discharge into East Creek

Photo: 2
Location: WLNG Treatment Discharge
Description: Lab CoC



2024-6-24-Blanchard-7494C

Sign Off

Report Prepared By: Sam Blanchard

Report Reviewed:

Report Reviewer:

Professional(s) of Record:

Name:

Designation:

Designation Number:



GP Woodfibre Gas Pipeline Project
Discharged Water Report
(Woodfibre Site)

Discharged water summary:

Date	Duration	Volume (m3)	Flow Rate
June 14, 2024	11 minutes	14.384	140 GPM
June 17, 2024	12 minutes	5.064	93 GPM
June 18, 2024	12 minutes	9.334	30 GPM
June 19, 2024	9 minutes	7.744	30 GPM
June 20, 2024	6 minutes	2.415	51 GPM
June 21, 2024	3 hours and 30 mins	38.032	25 GPM
June 22, 2024	3 hours	29.48836	35 GPM
June 23, 2024	45 minutes	11.03069	35 GPM
June 24, 2024	5 minutes	2.430	30 GPM



**GP Woodfibre Gas Pipeline Project
Discharged Water Report
(Woodfibre Site)**

June 14:

(Missing installed conductivity and temperature probs)

Date	Time	Discharge pH	Discharge Flow Rate (USGPM)	Discharge NTU	Discharge pH Low Limit	Discharge pH High Limit	Discharge NTU Setpoint	Flow Total (G)	Recirc Valve Status	Last Recirc Start Time	Discharge Valve Status	Last Discharge Start Time
2024/06/14	15:15:00	7.2	68	0.9	6.6	8.7	2	1,730	Closed	03:09:43 PM Jun-14-2024	Open	03:10:29 PM Jun-14-2024
2024/06/14	15:30:00	7	393	1.1	6.6	8.7	2	2,618	Open	03:26:05 PM Jun-14-2024	Closed	03:24:43 PM Jun-14-2024



GP Woodfibre Gas Pipeline Project
Discharged Water Report
(Woodfibre Site)

GP Woodfibre Gas Pipeline Project
Discharged Water Report
(Woodfibre Site)



**GP Woodfibre Gas Pipeline Project
Discharged Water Report
(Woodfibre Site)**

June 17:

(Missing installed conductivity and temperature probs)

Date	Time	Discharge pH	Discharge Flow Rate (USGPM)	Discharge NTU	Discharge pH Low Limit	Discharge pH High Limit	Discharge NTU Setpoint	Flow Total (G)	Recirc Valve Status	Last Recirc Start Time	Discharge Valve Status	Last Discharge Start Time
2024/06/17	15:45:00	7.2	93	2.5	6.6	8.7	2	2,912	Closed	03:35:06 PM Jun-16-2024	Open	03:42:33 PM Jun-17-2024
2024/06/17	16:00:00	7.2	0	2.2	6.6	8.7	2	4,250	Open	03:55:53 PM Jun-17-2024	Closed	03:42:33 PM Jun-17-2024



GP Woodfibre Gas Pipeline Project
Discharged Water Report
(Woodfibre Site)





GP Woodfibre Gas Pipeline Project
Discharged Water Report
(Woodfibre Site)

June 18:

(Missing installed conductivity and temperature probs)

Date	Time	Discharge pH	Discharge Flow Rate (USGPM)	Discharge NTU	Discharge pH Low Limit	Discharge pH High Limit	Discharge NTU Setpoint	Flow Total (G)	Recirc Valve Status	Last Recirc Start Time	Discharge Valve Status	Last Discharge Start Time
2024/06/18	15:15:00	7.1	341	2.4	6.6	8.7	0.1	4,250	Open	03:55:53 PM Jun-17-2024	Closed	03:42:33 PM Jun-17-2024
2024/06/18	15:30:00	7.1	156	3.8	6.6	8.7	0.1	5,148	Closed	03:55:53 PM Jun-17-2024	Open	03:24:43 PM Jun-18-2024
2024/06/18	15:45:00	7.1	0	3.1	6.6	8.7	0.1	6,716	Open	03:40:07 PM Jun-18-2024	Closed	03:24:43 PM Jun-18-2024

GP Woodfibre Gas Pipeline Project
Discharged Water Report
(Woodfibre Site)



GP Woodfibre Gas Pipeline Project
Discharged Water Report
(Woodfibre Site)

June 19:

Date	Time	Discharge pH	Discharge Flow Rate (USG PM)	Discharge NTU	Discharge pH Low Limit	Discharge pH High Limit	Discharge NTU Setpoint	Flow Total (G)	Recirc Valve Status	Last Recirc Start Time	Discharge Valve Status	Last Discharge Start Time	N7.N 7_58	Conductivity
6/19/2024	13:30:00	7.1	364	-0.2	6.6	8.7	0.1	6,716	Open	03:40:07 PM Jun-18-2024	Closed	03:24:43 PM Jun-18-2024	20.4	308
6/19/2024	13:45:00	7.1	222	-0.1	6.6	8.7	0.1	7,125	Closed	03:40:07 PM Jun-18-2024	Open	01:41:59 PM Jun-19-2024	20.6	306
6/19/2024	14:00:00	7.1	366	-0.3	6.6	8.7	0.1	8,762	Open	01:57:19 PM Jun-19-2024	Closed	01:41:59 PM Jun-19-2024	20.6	304



GP Woodfibre Gas Pipeline Project

Discharged Water Report (Woodfibre Site)

June 20:

Date	Time	Discharge pH	Discharge Flow Rate (USGPM)	Discharge NTU	Discharge pH Low Limit	Discharge pH High Limit	Discharge NTU Setpoint	Flow Total (G)	Recirc Valve Status	Last Recirc Start Time	Discharge Valve Status	Last Discharge Start Time	N7.N7_58	Conductivity
6/20/2024	12:15:00	7.2	416	-0.7	6.6	8.7	0.1	8,762	Open	01:57:19 PM Jun-19-2024	Closed	01:41:59 PM Jun-19-2024	22.7	281
6/20/2024	12:30:00	7.2	51	3.7	6.6	8.7	0.1	9,267	Closed	01:57:19 PM Jun-19-2024	Open	12:22:17 PM Jun-20-2024	22.8	283
6/20/2024	12:45:00	7.2	409	-0.6	6.6	8.7	0.1	9,399	Open	12:31:39 PM Jun-20-2024	Closed	12:22:17 PM Jun-20-2024	23	283

June 21:

Date	Time	Discharge pH	Discharge Flow Rate (USGPM)	Discharge NTU	Discharge pH Low Limit	Discharge pH High Limit	Discharge NTU Setpoint	Flow Total (G)	Recirc Valve Status	Last Recirc Start Time	Discharge Valve Status	Last Discharge Start Time	N7.N7_58	Conductivity
6/21/2024	9:45:00	7	426	-0.3	6.6	8.7	0.1	9,399	Open		12:31:39 PM Jun-20-2024	12:22:17 PM Jun-20-2024	23.9	229
6/21/2024	10:00:00	7.1	67	0.6	6.6	8.7	0.1	9,881	Closed		12:31:39 PM Jun-20-2024	09:54:59 AM Jun-21-2024	24	229
6/21/2024	10:15:00	7.1	423	-0.6	6.6	8.7	0.1	10,444	Open		10:08:43 AM Jun-21-2024	09:54:59 AM Jun-21-2024	24	229
6/21/2024	10:30:00	7.1	424	-0.8	6.6	8.7	0.1	10,444	Open		10:08:43 AM Jun-21-2024	09:54:59 AM Jun-21-2024	24.1	230
6/21/2024	10:45:00	7.1	431	-0.8	6.6	8.7	0.1	10,444	Open		10:08:43 AM Jun-21-2024	09:54:59 AM Jun-21-2024	24.1	230
6/21/2024	11:00:00	7.1	424	-0.8	6.6	8.7	0.1	10,444	Open		10:08:43 AM Jun-21-2024	09:54:59 AM Jun-21-2024	24.4	223

GP Woodfibre Gas Pipeline Project

Discharged Water Report (Woodfibre Site)

6/21/2024	11:15:00	7.1	436	-0.9	6.6	8.7	0.1	10,444	Open		10:08:43 AM Jun-21-2024	09:54:59 AM Jun-21-2024	24.6	217
6/21/2024	11:30:00	7.1	31	1.1	6.6	8.7	0.1	11,012	Closed		10:08:43 AM Jun-21-2024	11:20:43 AM Jun-21-2024	24.8	215
6/21/2024	11:45:00	7.2	35	-0.2	6.6	8.7	0.1	11,546	Closed		10:08:43 AM Jun-21-2024	11:20:43 AM Jun-21-2024	24.9	215
6/21/2024	12:00:00	7.2	35	-0.5	6.6	8.7	0.1	12,086	Closed		10:08:43 AM Jun-21-2024	11:20:43 AM Jun-21-2024	25	215
6/21/2024	12:15:00	7.2	42	-0.6	6.6	8.7	0.1	12,647	Closed		10:08:43 AM Jun-21-2024	11:20:43 AM Jun-21-2024	25.1	214
6/21/2024	12:30:00	7.2	42	-0.8	6.6	8.7	0.1	13,316	Closed		10:08:43 AM Jun-21-2024	11:20:43 AM Jun-21-2024	25.2	214
6/21/2024	12:45:00	7.2	44	-0.8	6.6	8.7	0.1	13,921	Closed		10:08:43 AM Jun-21-2024	11:20:43 AM Jun-21-2024	25.3	206
6/21/2024	13:00:00	7.2	445	-0.8	6.6	8.7	0.1	14,252	Open		12:52:29 PM Jun-21-2024	11:20:43 AM Jun-21-2024	25.3	195
6/21/2024	13:15:00	7.2	115	-1.1	6.6	8.7	0.1	14,688	Closed		12:52:29 PM Jun-21-2024	01:13:16 PM Jun-21-2024	25.3	199
6/21/2024	13:30:00	7.2	29	-0.6	6.6	8.7	0.1	15,444	Closed		12:52:29 PM Jun-21-2024	01:13:16 PM Jun-21-2024	25.4	201
6/21/2024	13:45:00	7.2	32	-0.8	6.6	8.7	0.1	15,709	Closed		12:52:29 PM Jun-21-2024	01:13:16 PM Jun-21-2024	25.5	201
6/21/2024	14:00:00	7.2	32	-0.9	6.6	8.7	0.1	16,249	Closed		12:52:29 PM Jun-21-2024	01:13:16 PM Jun-21-2024	25.6	201
6/21/2024	14:15:00	7.2	450	-1.2	6.6	8.7	0.1	16,547	Open		02:09:29 PM Jun-21-2024	01:13:16 PM Jun-21-2024	25.8	199
6/21/2024	14:30:00	7.2	449	-1.1	6.6	8.7	0.1	16,547	Open		02:09:29 PM Jun-21-			
6/21/2024	14:45:00	7.2	32	-0.5	6.6	8.7	0.1	17,195	Closed		02:09:29 PM Jun-21-2024	02:33:39 PM Jun-21-2024	25.9	199
6/21/2024	15:00:00	7.2	444	-1.1	6.6	8.7	0.1	17,456	Open		02:52:05 PM Jun-21-2024	02:33:39 PM Jun-21-2024	26	201
6/21/2024	15:15:00	7.2	0	-1.3	6.6	8.7	0.1	17,754	Closed		02:52:05 PM Jun-21-2024	03:10:24 PM Jun-21-2024	26.1	201

GP Woodfibre Gas Pipeline Project

Discharged Water Report (Woodfibre Site)

6/21/2024	15:30:00	7.2	451	-1.3	6.6	8.7	0.1	17,805	Open		03:24:16 PM Jun-21-2024	03:10:24 PM Jun-21-2024	26.1	201
6/21/2024	15:45:00	7.2	39	-0.9	6.6	8.7	0.1	18,301	Closed		03:24:16 PM Jun-21-2024	03:34:31 PM Jun-21-2024	26.3	199
6/21/2024	16:00:00	7.2	441	-0.8	6.6	8.7	0.1	18,670	Open		03:54:46 PM Jun-21-2024	03:34:31 PM Jun-21-2024	26.4	198
6/21/2024	16:15:00	7.2	450	3.9	6.6	8.7	0.1	18,670	Open		03:54:46 PM Jun-21-2024	03:34:31 PM Jun-21-2024	26.7	194
6/21/2024	16:30:00	7.1	35	-0.3	6.6	8.7	0.1	19,302	Closed		03:54:46 PM Jun-21-2024	04:17:12 PM Jun-21-2024	26.9	213
6/21/2024	16:45:00	7.1	0	-0.9	6.6	8.7	0.1	19,447	Open		04:33:33 PM Jun-21-2024	04:17:12 PM Jun-21-2024	27.1	216

June 22:

Date	Time	Discharge pH	Discharge Flow Rate (USG PM)	Discharge NTU	Discharge pH Low Limit	Discharge pH High Limit	Discharge NTU Setpoint	Flow Total (G)	Recirc Valve Status	Last Recirc Start Time	Discharge Valve Status	Last Discharge Start Time	N7.N 7_58	Conductivity
6/22/2024	8:45:00	6.9	41	0.4	6.6	8.7	0.1	19,792	Closed	04:33:33 PM Jun-21-2024	Open	08:42:33 AM Jun-22-2024	24.5	199
6/22/2024	9:00:00	6.9	39	0.9	6.6	8.7	0.1	20,280	Closed	04:33:33 PM Jun-21-2024	Open	08:42:33 AM Jun-22-2024	24.5	211
6/22/2024	9:15:00	7	434	0.2	6.6	8.7	0.1	20,395	Open	09:02:50 AM Jun-22-2024	Closed	08:42:33 AM Jun-22-2024	24.6	208

GP Woodfibre Gas Pipeline Project

Discharged Water Report (Woodfibre Site)

6/22/2024	9:30:00	7	43	1.2	6.6	8.7	0.1	20,819	Closed	09:02:50 AM Jun-22-2024	Open	09:25:22 AM Jun-22-2024	24.6	211
6/22/2024	9:45:00	7	30	0.7	6.6	8.7	0.1	21,277	Closed	09:02:50 AM Jun-22-2024	Open	09:25:22 AM Jun-22-2024	24.6	213
6/22/2024	10:00:00	7	29	0.5	6.6	8.7	0.1	21,778	Closed	09:02:50 AM Jun-22-2024	Open	09:25:22 AM Jun-22-2024	24.6	213
6/22/2024	10:15:00	7.1	30	0.5	6.6	8.7	0.1	22,194	Closed	09:02:50 AM Jun-22-2024	Open	09:25:22 AM Jun-22-2024	24.5	213
6/22/2024	10:30:00	7.1	454	1.9	6.6	8.7	0.1	22,552	Open	10:25:29 AM Jun-22-2024	Closed	09:25:22 AM Jun-22-2024	24.5	211
6/22/2024	10:45:00	7	443	23.8	6.6	8.7	0.1	22,552	Open	10:25:29 AM Jun-22-2024	Closed	09:25:22 AM Jun-22-2024	24.4	209
6/22/2024	11:00:00	7	456	4.5	6.6	8.7	0.1	22,552	Open	10:25:29 AM Jun-22-2024	Closed	09:25:22 AM Jun-22-2024	24.5	204
6/22/2024	11:15:00	7	37	0.9	6.6	8.7	0.1	23,046	Closed	10:25:29 AM Jun-22-2024	Open	11:05:48 AM Jun-22-2024	24.7	202

GP Woodfibre Gas Pipeline Project

Discharged Water Report

(Woodfibre Site)

6/22/2024	11:30:00	7.1	33	-0.4	6.6	8.7	0.1	23,586	Closed	10:25:29 AM Jun-22-2024	Open	11:05:48 AM Jun-22-2024	24.7	202
6/22/2024	11:45:00	7.1	34	-0.4	6.6	8.7	0.1	24,118	Closed	10:25:29 AM Jun-22-2024	Open	11:05:48 AM Jun-22-2024	24.7	202
6/22/2024	12:00:00	7.1	0	-0.2	6.6	8.7	0.1	24,644	Open	11:59:13 AM Jun-22-2024	Closed	11:05:48 AM Jun-22-2024	24.7	202
6/22/2024	12:15:00	7.1	0	-0.4	6.6	8.7	0.1	24,644	Open	11:59:13 AM Jun-22-2024	Closed	11:05:48 AM Jun-22-2024	24.7	204
6/22/2024	12:30:00	7.1	0	-0.5	6.6	8.7	0.1	24,644	Open	11:59:13 AM Jun-22-2024	Closed	11:05:48 AM Jun-22-2024	24.7	204
6/22/2024	12:45:00	7.1	0	-0.4	6.6	8.7	0.1	24,644	Open	11:59:13 AM Jun-22-2024	Closed	11:05:48 AM Jun-22-2024	24.6	204
6/22/2024	13:00:00	7.1	29	0	6.6	8.7	0.1	24,922	Closed	11:59:13 AM Jun-22-2024	Open	12:54:55 PM Jun-22-2024	24.6	206
6/22/2024	13:15:00	7.1	37	-0.1	6.6	8.7	0.1	25,412	Closed	11:59:13 AM Jun-22-2024				

GP Woodfibre Gas Pipeline Project

Discharged Water Report (Woodfibre Site)

June 23:

Date	Time	Discharge pH	Discharge Flow Rate (USG PM)	Discharge NTU	Discharge pH Low Limit	Discharge pH High Limit	Discharge NTU Setpoint	Flow Total (G)	Recirc Valve Status	Last Recirc Start Time	Discharge Valve Status	Last Discharge Start Time	N7.N 7_58	Conductivity
6/23/2024	10:00:00	7.1	454	0.2	6.6	8.7	0.1	27,570	Open	03:21:08 PM Jun-22-2024	Closed	02:38:23 PM Jun-22-2024	21.5	182
6/23/2024	10:15:00	7.1	31	0.5	6.6	8.7	0.1	28,215	Closed	10:07:27 AM Jun-23-2024	Open	10:10:15 AM Jun-23-2024	21.5	178
6/23/2024	10:30:00	7.1	29	0.8	6.6	8.7	0.1	28,721	Closed	10:07:27 AM Jun-23-2024	Open	10:10:15 AM Jun-23-2024	21.5	180
6/23/2024	10:45:00	7.1	28	0.7	6.6	8.7	0.1	28,938	Closed	10:07:27 AM Jun-23-2024	Open	10:10:15 AM Jun-23-2024	21.4	180
6/23/2024	11:00:00	7.1	0	0.6	6.6	8.7	0.1	29,262	Closed	10:07:27 AM Jun-23-2024	Open	10:10:15 AM Jun-23-2024	21.4	180
6/23/2024	11:15:00	7.1	463	0.3	6.6	8.7	0.1	29,360	Open	11:10:58 AM Jun-23-2024	Closed	10:10:15 AM Jun-23-2024	21.4	173
6/23/2024	11:30:00	7.1	451	0.1	6.6	8.7	0.1	29,360	Open	11:10:58 AM Jun-23-2024	Closed	10:10:15 AM Jun-23-2024	21.4	171



GP Woodfibre Gas Pipeline Project

Discharged Water Report

(Woodfibre Site)

6/23/2024	11:45:00	7.1	34	1.2	6.6	8.7	0.1	29,944	Closed	11:10:58 AM Jun-23-2024	Open	11:31:36 AM Jun-23-2024	21.5	169
6/23/2024	12:00:00	7.1	33	0.4	6.6	8.7	0.1	30,484	Closed	11:10:58 AM Jun-23-2024	Open	11:31:36 AM Jun-23-2024	21.4	169
6/23/2024	12:15:00	7.1	454	0.2	6.6	8.7	0.1	30,856	Open	12:11:25 PM Jun-23-2024	Closed	11:31:36 AM Jun-23-2024	21.4	167

June 24:


Date	Time	Discharge pH	Discharge Flow Rate (US GPM)	Discharge NTU	Discharge pH Low Limit	Discharge pH High Limit	Discharge NTU Setpoint	Flow Total (G)	Recirc Valve Status	Last Recirc Start Time	Discharge Valve Status	Last Discharge Start Time	N7 .N7_58	Conductivity
6/24/2024	11:45:00	7	418	-0.3	6.6	8.7	0.1	30,856	Open	12:11:25 PM Jun-23-2024	Closed	11:31:36 AM Jun-23-2024	20.4	137
6/24/2024	12:00:00	7	0	0.8	6.6	8.7	0.1	31,141	Closed	12:11:25 PM Jun-23-2024	Open	11:55:06 AM Jun-24-2024	20.5	138
6/24/2024	12:15:00	7	420	-0.3	6.6	8.7	0.1	31,498	Open	12:02:57 PM Jun-24-2024	Closed	11:55:06 AM Jun-24-2024	20.5	135



**Eagle Mountain - Woodfibre Gas Pipeline Project
Waste Discharge Permit PE-110163 Report**

Reporting Week	June 17 th to June 23 rd , 2024
Report #	13
Appendix D	D-1

Appendix D: Woodfibre Site Receiving Environment Documentation

 Eagle Mountain - Woodfibre Gas Pipeline Project Waste Discharge Permit PE-110163 Report	Reporting Week	June 17 th to June 23 rd , 2024
	Report #	13
	Appendix D	D-2

Woodfibre Site Receiving Environment Sample Analysis





**Eagle Mountain - Woodfibre Gas Pipeline Project
Waste Discharge Permit PE-110163 Report**


Reporting Week	June 17 th to June 23 rd , 2024
Report #	13
Appendix D	D-3



Woodfibre Site Receiving Environment Lab Documentation

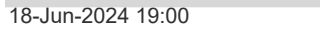


CERTIFICATE OF ANALYSIS

Work Order : **VA24B4298**
Client : **Triton Environmental Consultants Ltd.**
Contact : 
Address : 

Telephone : 
Project : 11964
PO : 11964 - Task 20 - Phase 3C-4C
C-O-C number : ----
Sampler : ----
Site : Water Analysis
Quote number : VA23-TRIT100-012_V2
No. of samples received : 2
No. of samples analysed : 2

Page : 1 of 6
Laboratory : ALS Environmental - Vancouver
Account Manager : 
Address : 

Telephone : 
Date Samples Received : 18-Jun-2024 19:00
Date Analysis Commenced : 20-Jun-2024
Issue Date : 02-Jul-2024 12:58

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>
	Laboratory Analyst	Metals, Burnaby, British Columbia
	Lab Assistant	Metals, Burnaby, British Columbia
	Lab Analyst	Inorganics, Calgary, Alberta
	Analyst	Metals, Burnaby, British Columbia
	Supervisor - Metals ICP Instrumentation	Metals, Burnaby, British Columbia
	Department Manager - Inorganics	Inorganics, Burnaby, British Columbia
	Senior Analyst	Inorganics, Waterloo, Ontario
	Senior Analyst	Metals, Waterloo, Ontario
		Metals, Burnaby, British Columbia
	Account Manager Assistant	Administration, 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).

<i>Unit</i>	<i>Description</i>
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
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					Client sample ID	WLNG US 1	WLNG DS 1	----	----	----
(Matrix: Water)					Client sampling date / time	18-Jun-2024 09:33	18-Jun-2024 10:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4298-001	VA24B4298-002	-----	-----	-----	
					Result	Result	----	----	----	
Field Tests										
Conductivity, field	----	EF001/VA	0.10	µS/cm	27.000	21.000	----	----	----	
pH, field	----	EF001/VA	0.10	pH units	7.20	7.30	----	----	----	
Temperature, field	----	EF001/VA	0.10	°C	10.9	11.4	----	----	----	
Physical Tests										
Hardness (as CaCO3), dissolved	----	EC100/VA	0.60	mg/L	6.07	6.65	----	----	----	
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/VA	0.60	mg/L	5.88	6.60	----	----	----	
Solids, total dissolved [TDS]	----	E162/VA	10	mg/L	17	20	----	----	----	
Solids, total suspended [TSS]	----	E160/VA	3.0	mg/L	<3.0	<3.0	----	----	----	
Alkalinity, total (as CaCO3)	----	E290/VA	2.0	mg/L	6.1	6.7	----	----	----	
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L	<0.0050	<0.0050	----	----	----	
Bromide	24959-67-9	E235.Br-L/VA	0.050	mg/L	<0.050	<0.050	----	----	----	
Chloride	16887-00-6	E235.Cl/VA	0.50	mg/L	0.54	0.54	----	----	----	
Fluoride	16984-48-8	E235.F/VA	0.020	mg/L	<0.020	0.021	----	----	----	
Nitrate (as N)	14797-55-8	E235.NO3-L/V A	0.0050	mg/L	<0.0050	<0.0050	----	----	----	
Nitrite (as N)	14797-65-0	E235.NO2-L/V A	0.0010	mg/L	<0.0010	<0.0010	----	----	----	
Nitrogen, total	7727-37-9	E366/VA	0.030	mg/L	<0.030	0.030	----	----	----	
Phosphorus, total	7723-14-0	E372-U/VA	0.0020	mg/L	0.0051	0.0045	----	----	----	
Sulfate (as SO4)	14808-79-8	E235.SO4/VA	0.30	mg/L	1.72	1.90	----	----	----	
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/CG	0.50	mg/L	2.20	3.71	----	----	----	
Total Sulfides										
Sulfide, total (as S)	18496-25-8	E395/VA	0.0015	mg/L	<0.0015	<0.0015	----	----	----	
Sulfide, un-ionized (as H2S), from total	7783-06-4	EC395/VA	0.0015	mg/L	<0.0015	<0.0015	----	----	----	
Sulfide, total (as H2S)	7783-06-4	E395/VA	0.0016	mg/L	<0.0016	<0.0016	----	----	----	
Total Metals										
Aluminum, total	7429-90-5	E420/VA	0.0030	mg/L	0.0898	0.0756	----	----	----	
Antimony, total	7440-36-0	E420/VA	0.00010	mg/L	<0.00010	<0.00010	----	----	----	



Analytical Results

Sub-Matrix: Water					Client sample ID	WLNG US 1	WLNG DS 1	----	----	----
(Matrix: Water)					Client sampling date / time	18-Jun-2024 09:33	18-Jun-2024 10:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4298-001	VA24B4298-002	-----	-----	-----	
					Result	Result	----	----	----	
Total Metals										
Arsenic, total	7440-38-2	E420/VA	0.00010	mg/L	0.00011	<0.00010	----	----	----	
Barium, total	7440-39-3	E420/VA	0.00010	mg/L	0.00285	0.00380	----	----	----	
Beryllium, total	7440-41-7	E420/VA	0.000100	mg/L	<0.000100	<0.000100	----	----	----	
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	<0.010	----	----	----	
Cadmium, total	7440-43-9	E420/VA	0.0000050	mg/L	0.0000055	0.0000058	----	----	----	
Calcium, total	7440-70-2	E420/VA	0.050	mg/L	1.99	2.26	----	----	----	
Cesium, total	7440-46-2	E420/VA	0.000010	mg/L	<0.000010	<0.000010	----	----	----	
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	<0.00010	----	----	----	
Copper, total	7440-50-8	E420/VA	0.00050	mg/L	0.00054	0.00053	----	----	----	
Iron, total	7439-89-6	E420/VA	0.010	mg/L	0.036	0.042	----	----	----	
Lead, total	7439-92-1	E420/VA	0.000050	mg/L	<0.000050	<0.000050	----	----	----	
Lithium, total	7439-93-2	E420/VA	0.0010	mg/L	<0.0010	<0.0010	----	----	----	
Magnesium, total	7439-95-4	E420/VA	0.0050	mg/L	0.222	0.232	----	----	----	
Manganese, total	7439-96-5	E420/VA	0.00010	mg/L	0.00144	0.00197	----	----	----	
Mercury, total	7439-97-6	E508/VA	0.0000050	mg/L	<0.0000050	<0.0000050	----	----	----	
Molybdenum, total	7439-98-7	E420/VA	0.000050	mg/L	0.000342	0.000581	----	----	----	
Nickel, total	7440-02-0	E420/VA	0.00050	mg/L	<0.00050	<0.00050	----	----	----	
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	0.146	0.159	----	----	----	
Rubidium, total	7440-17-7	E420/VA	0.00020	mg/L	0.00025	0.00028	----	----	----	
Selenium, total	7782-49-2	E420/VA	0.000050	mg/L	<0.000050	<0.000050	----	----	----	
Silicon, total	7440-21-3	E420/VA	0.10	mg/L	4.17	4.27	----	----	----	
Silver, total	7440-22-4	E420/VA	0.000010	mg/L	<0.000010	<0.000010	----	----	----	
Sodium, total	7440-23-5	E420/VA	0.050	mg/L	1.38	1.38	----	----	----	
Strontium, total	7440-24-6	E420/VA	0.00020	mg/L	0.0115	0.0118	----	----	----	
Sulfur, total	7704-34-9	E420/VA	0.50	mg/L	0.58	0.73	----	----	----	
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	<0.000010	----	----	----	



Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	WLNG US 1	WLNG DS 1	----	----	----
Client sampling date / time					18-Jun-2024 09:33	18-Jun-2024 10:00	----	----	----	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4298-001	VA24B4298-002	-----	-----	-----	
					Result	Result	----	----	----	
Total Metals										
Thorium, total	7440-29-1	E420/VA	0.00010	mg/L	<0.00010	<0.00010	----	----	----	
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	0.00095	0.00089	----	----	----	
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	0.000084	0.000090	----	----	----	
Vanadium, total	7440-62-2	E420/VA	0.00050	mg/L	<0.00050	<0.00050	----	----	----	
Zinc, total	7440-66-6	E420/VA	0.0030	mg/L	<0.0030	<0.0030	----	----	----	
Zirconium, total	7440-67-7	E420/VA	0.00020	mg/L	<0.00020	<0.00020	----	----	----	
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/VA	0.0010	mg/L	0.0646	0.0569	----	----	----	
Antimony, dissolved	7440-36-0	E421/VA	0.00010	mg/L	<0.00010	<0.00010	----	----	----	
Arsenic, dissolved	7440-38-2	E421/VA	0.00010	mg/L	0.00010	0.00010	----	----	----	
Barium, dissolved	7440-39-3	E421/VA	0.00010	mg/L	0.00281	0.00347	----	----	----	
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	0.0000066	0.0000058	----	----	----	
Calcium, dissolved	7440-70-2	E421/VA	0.050	mg/L	2.07	2.28	----	----	----	
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	0.00051	0.00046	----	----	----	
Iron, dissolved	7439-89-6	E421/VA	0.010	mg/L	0.020	0.026	----	----	----	
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	<0.0010	<0.0010	----	----	----	
Magnesium, dissolved	7439-95-4	E421/VA	0.0050	mg/L	0.220	0.233	----	----	----	
Manganese, dissolved	7439-96-5	E421/VA	0.00010	mg/L	0.00081	0.00163	----	----	----	
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	0.000323	0.000530	----	----	----	
Nickel, dissolved	7440-02-0	E421/VA	0.00050	mg/L	<0.00050	<0.00050	----	----	----	



Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	WLNG US 1	WLNG DS 1	----	----	----
Client sampling date / time					18-Jun-2024 09:33	18-Jun-2024 10:00	----	----	----	
Analyte	CAS Number	Method/Lab	LOR	Unit	VA24B4298-001	VA24B4298-002	-----	-----	-----	
					Result	Result	----	----	----	
Dissolved Metals										
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	0.157	0.164	----	----	----	
Rubidium, dissolved	7440-17-7	E421/VA	0.00020	mg/L	0.00027	0.00033	----	----	----	
Selenium, dissolved	7782-49-2	E421/VA	0.000050	mg/L	<0.000050	<0.000050	----	----	----	
Silicon, dissolved	7440-21-3	E421/VA	0.050	mg/L	4.04	4.14	----	----	----	
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	1.41	1.44	----	----	----	
Strontium, dissolved	7440-24-6	E421/VA	0.00020	mg/L	0.0112	0.0111	----	----	----	
Sulfur, dissolved	7704-34-9	E421/VA	0.50	mg/L	0.57	0.67	----	----	----	
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	0.00045	0.00031	----	----	----	
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	0.000080	0.000083	----	----	----	
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	0.0012	0.0014	----	----	----	
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	----	----	----	
Speciated Metals										
Chromium, hexavalent [Cr VI], total	18540-29-9	E532/WT	0.00050	mg/L	<0.00050	<0.00050	----	----	----	
Chromium, trivalent [Cr III], total	16065-83-1	EC535/WT	0.00050	mg/L	<0.00050	<0.00050	----	----	----	

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

<p>Work Order : VA24B4298</p> <p>Client : Triton Environmental Consultants Ltd.</p> <p>Contact : [REDACTED]</p> <p>Address : [REDACTED]</p> <p>Telephone : [REDACTED]</p> <p>Project : 11964</p> <p>PO : 11964 - Task 20 - Phase 3C-4C</p> <p>C-O-C number : ----</p> <p>Sampler : ----</p> <p>Site : Water Analysis</p> <p>Quote number : VA23-TRIT100-012_V2</p> <p>No. of samples received : 2</p> <p>No. of samples analysed : 2</p>	<p>Page : 1 of 15</p> <p>Laboratory : ALS Environmental - Vancouver</p> <p>Account Manager : [REDACTED]</p> <p>Address : [REDACTED]</p> <p>Telephone : [REDACTED]</p> <p>Date Samples Received : 18-Jun-2024 19:00</p> <p>Issue Date : 02-Jul-2024 12:59</p>
---	---

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 Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- Duplicate 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)

- No Analysis Holding Time Outliers exist.

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
Duplicate (DUP) RPDs								
Dissolved Metals	Anonymous	Anonymous	Copper, dissolved	7440-50-8	E421	0.00140 ^{DUP-H} %	Diff <2x LOR	Low Level DUP DQO exceeded (difference > 2 LOR).

Result Qualifiers

Qualifier	Description
DUP-H	Duplicate results outside ALS DQO, due to sample heterogeneity.



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 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 : Ammonia by Fluorescence											
Amber glass total (sulfuric acid) WLNG DS 1	E298	18-Jun-2024	26-Jun-2024	28 days	8 days	✔	26-Jun-2024	28 days	9 days	✔	
Anions and Nutrients : Ammonia by Fluorescence											
Amber glass total (sulfuric acid) WLNG US 1	E298	18-Jun-2024	26-Jun-2024	28 days	8 days	✔	26-Jun-2024	28 days	9 days	✔	
Anions and Nutrients : Bromide in Water by IC (Low Level)											
HDPE WLNG DS 1	E235.Br-L	18-Jun-2024	20-Jun-2024	28 days	2 days	✔	20-Jun-2024	28 days	2 days	✔	
Anions and Nutrients : Bromide in Water by IC (Low Level)											
HDPE WLNG US 1	E235.Br-L	18-Jun-2024	20-Jun-2024	28 days	2 days	✔	20-Jun-2024	28 days	2 days	✔	
Anions and Nutrients : Chloride in Water by IC											
HDPE WLNG DS 1	E235.Cl	18-Jun-2024	20-Jun-2024	28 days	2 days	✔	20-Jun-2024	28 days	2 days	✔	
Anions and Nutrients : Chloride in Water by IC											
HDPE WLNG US 1	E235.Cl	18-Jun-2024	20-Jun-2024	28 days	2 days	✔	20-Jun-2024	28 days	2 days	✔	
Anions and Nutrients : Fluoride in Water by IC											
HDPE WLNG DS 1	E235.F	18-Jun-2024	20-Jun-2024	28 days	2 days	✔	20-Jun-2024	28 days	2 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		
Anions and Nutrients : Fluoride in Water by IC											
HDPE WLNG US 1	E235.F	18-Jun-2024	20-Jun-2024	28 days	2 days	✓	20-Jun-2024	28 days	2 days	✓	
Anions and Nutrients : Nitrate in Water by IC (Low Level)											
HDPE WLNG DS 1	E235.NO3-L	18-Jun-2024	20-Jun-2024	3 days	2 days	✓	20-Jun-2024	3 days	2 days	✓	
Anions and Nutrients : Nitrate in Water by IC (Low Level)											
HDPE WLNG US 1	E235.NO3-L	18-Jun-2024	20-Jun-2024	3 days	2 days	✓	20-Jun-2024	3 days	2 days	✓	
Anions and Nutrients : Nitrite in Water by IC (Low Level)											
HDPE WLNG DS 1	E235.NO2-L	18-Jun-2024	20-Jun-2024	3 days	2 days	✓	20-Jun-2024	3 days	2 days	✓	
Anions and Nutrients : Nitrite in Water by IC (Low Level)											
HDPE WLNG US 1	E235.NO2-L	18-Jun-2024	20-Jun-2024	3 days	2 days	✓	20-Jun-2024	3 days	2 days	✓	
Anions and Nutrients : Sulfate in Water by IC											
HDPE WLNG DS 1	E235.SO4	18-Jun-2024	20-Jun-2024	28 days	2 days	✓	20-Jun-2024	28 days	2 days	✓	
Anions and Nutrients : Sulfate in Water by IC											
HDPE WLNG US 1	E235.SO4	18-Jun-2024	20-Jun-2024	28 days	2 days	✓	20-Jun-2024	28 days	2 days	✓	
Anions and Nutrients : Total Nitrogen by Colourimetry											
Amber glass total (sulfuric acid) WLNG DS 1	E366	18-Jun-2024	26-Jun-2024	28 days	8 days	✓	27-Jun-2024	28 days	9 days	✓	
Anions and Nutrients : Total Nitrogen by Colourimetry											
Amber glass total (sulfuric acid) WLNG US 1	E366	18-Jun-2024	26-Jun-2024	28 days	8 days	✓	27-Jun-2024	28 days	9 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	
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) WLNG DS 1	E372-U	18-Jun-2024	26-Jun-2024	28 days	8 days	✓	29-Jun-2024	28 days	11 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) WLNG US 1	E372-U	18-Jun-2024	26-Jun-2024	28 days	8 days	✓	29-Jun-2024	28 days	11 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial - dissolved (lab preserved) WLNG DS 1	E509	18-Jun-2024	25-Jun-2024	28 days	7 days	✓	25-Jun-2024	28 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial - dissolved (lab preserved) WLNG US 1	E509	18-Jun-2024	25-Jun-2024	28 days	7 days	✓	25-Jun-2024	28 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) WLNG DS 1	E421	18-Jun-2024	22-Jun-2024	180 days	4 days	✓	24-Jun-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved) WLNG US 1	E421	18-Jun-2024	22-Jun-2024	180 days	4 days	✓	24-Jun-2024	180 days	7 days	✓
Field Tests : Field pH,EC,Salinity, TDS, Cl2,CIO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial - total (lab preserved) WLNG DS 1	EF001	18-Jun-2024	----	----	----		20-Jun-2024	----	2 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,CIO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial - total (lab preserved) WLNG US 1	EF001	18-Jun-2024	----	----	----		20-Jun-2024	----	2 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) WLNG DS 1	E358-L	18-Jun-2024	22-Jun-2024	28 days	4 days	✓	26-Jun-2024	28 days	8 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		
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)											
Amber glass dissolved (sulfuric acid) WLNG US 1	E358-L	18-Jun-2024	22-Jun-2024	28 days	4 days	✓	26-Jun-2024	28 days	8 days	✓	
Physical Tests : Alkalinity Species by Titration											
HDPE WLNG DS 1	E290	18-Jun-2024	25-Jun-2024	14 days	7 days	✓	25-Jun-2024	14 days	7 days	✓	
Physical Tests : Alkalinity Species by Titration											
HDPE WLNG US 1	E290	18-Jun-2024	25-Jun-2024	14 days	7 days	✓	25-Jun-2024	14 days	7 days	✓	
Physical Tests : TDS by Gravimetry											
HDPE WLNG DS 1	E162	18-Jun-2024	----	----	----		24-Jun-2024	7 days	7 days	✓	
Physical Tests : TDS by Gravimetry											
HDPE WLNG US 1	E162	18-Jun-2024	----	----	----		24-Jun-2024	7 days	7 days	✓	
Physical Tests : TSS by Gravimetry											
HDPE WLNG DS 1	E160	18-Jun-2024	----	----	----		24-Jun-2024	7 days	7 days	✓	
Physical Tests : TSS by Gravimetry											
HDPE WLNG US 1	E160	18-Jun-2024	----	----	----		24-Jun-2024	7 days	7 days	✓	
Speciated Metals : Total Hexavalent Chromium (Cr VI) by IC											
UV-inhibited HDPE - total (sodium hydroxide) WLNG DS 1	E532	18-Jun-2024	----	----	----		21-Jun-2024	28 days	3 days	✓	
Speciated Metals : Total Hexavalent Chromium (Cr VI) by IC											
UV-inhibited HDPE - total (sodium hydroxide) WLNG US 1	E532	18-Jun-2024	----	----	----		21-Jun-2024	28 days	3 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	
Total Metals : Total Mercury in Water by CVAAS										
Glass vial - total (lab preserved) WLNG DS 1	E508	18-Jun-2024	25-Jun-2024	28 days	7 days	✔	25-Jun-2024	28 days	7 days	✔
Total Metals : Total Mercury in Water by CVAAS										
Glass vial - total (lab preserved) WLNG US 1	E508	18-Jun-2024	25-Jun-2024	28 days	7 days	✔	25-Jun-2024	28 days	7 days	✔
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) WLNG DS 1	E420	18-Jun-2024	24-Jun-2024	180 days	6 days	✔	25-Jun-2024	180 days	7 days	✔
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved) WLNG US 1	E420	18-Jun-2024	24-Jun-2024	180 days	6 days	✔	25-Jun-2024	180 days	7 days	✔
Total Sulfides : Total Sulfide by Colourimetry (Automated Flow)										
HDPE total (zinc acetate+sodium hydroxide) WLNG DS 1	E395	18-Jun-2024	----	----	----		25-Jun-2024	7 days	7 days	✔
Total Sulfides : Total Sulfide by Colourimetry (Automated Flow)										
HDPE total (zinc acetate+sodium hydroxide) WLNG US 1	E395	18-Jun-2024	----	----	----		25-Jun-2024	7 days	7 days	✔

Legend & Qualifier Definitions

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 (%)		
			QC	Regular	Actual	Expected	Evaluation
Analytical Methods							
Laboratory Duplicates (DUP)							
Alkalinity Species by Titration	E290	1513196	1	10	10.0	5.0	✔
Ammonia by Fluorescence	E298	1514719	1	19	5.2	5.0	✔
Bromide in Water by IC (Low Level)	E235.Br-L	1504409	1	2	50.0	5.0	✔
Chloride in Water by IC	E235.Cl	1504407	1	15	6.6	5.0	✔
Dissolved Mercury in Water by CVAAS	E509	1512223	1	15	6.6	5.0	✔
Dissolved Metals in Water by CRC ICPMS	E421	1502770	2	18	11.1	5.0	✔
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1509482	1	20	5.0	5.0	✔
Fluoride in Water by IC	E235.F	1504408	1	16	6.2	5.0	✔
Nitrate in Water by IC (Low Level)	E235.NO3-L	1504404	1	20	5.0	5.0	✔
Nitrite in Water by IC (Low Level)	E235.NO2-L	1504405	1	18	5.5	5.0	✔
Sulfate in Water by IC	E235.SO4	1504406	1	15	6.6	5.0	✔
TDS by Gravimetry	E162	1511829	1	20	5.0	5.0	✔
Total Hexavalent Chromium (Cr VI) by IC	E532	1507092	1	18	5.5	5.0	✔
Total Mercury in Water by CVAAS	E508	1512452	1	18	5.5	5.0	✔
Total Metals in Water by CRC ICPMS	E420	1504284	1	20	5.0	5.0	✔
Total Nitrogen by Colourimetry	E366	1514717	1	9	11.1	5.0	✔
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1514718	1	12	8.3	5.0	✔
Total Sulfide by Colourimetry (Automated Flow)	E395	1511317	1	17	5.8	5.0	✔
TSS by Gravimetry	E160	1511865	1	20	5.0	5.0	✔
Laboratory Control Samples (LCS)							
Alkalinity Species by Titration	E290	1513196	1	10	10.0	5.0	✔
Ammonia by Fluorescence	E298	1514719	1	19	5.2	5.0	✔
Bromide in Water by IC (Low Level)	E235.Br-L	1504409	1	2	50.0	5.0	✔
Chloride in Water by IC	E235.Cl	1504407	1	15	6.6	5.0	✔
Dissolved Mercury in Water by CVAAS	E509	1512223	1	15	6.6	5.0	✔
Dissolved Metals in Water by CRC ICPMS	E421	1502770	1	18	5.5	5.0	✔
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1509482	1	20	5.0	5.0	✔
Fluoride in Water by IC	E235.F	1504408	1	16	6.2	5.0	✔
Nitrate in Water by IC (Low Level)	E235.NO3-L	1504404	1	20	5.0	5.0	✔
Nitrite in Water by IC (Low Level)	E235.NO2-L	1504405	1	18	5.5	5.0	✔
Sulfate in Water by IC	E235.SO4	1504406	1	15	6.6	5.0	✔
TDS by Gravimetry	E162	1511829	1	20	5.0	5.0	✔
Total Hexavalent Chromium (Cr VI) by IC	E532	1507092	1	18	5.5	5.0	✔
Total Mercury in Water by CVAAS	E508	1512452	1	18	5.5	5.0	✔
Total Metals in Water by CRC ICPMS	E420	1504284	1	20	5.0	5.0	✔
Total Nitrogen by Colourimetry	E366	1514717	1	9	11.1	5.0	✔



Matrix: **Water**

Evaluation: * = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
Analytical Methods							
Laboratory Control Samples (LCS) - Continued							
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1514718	1	12	8.3	5.0	✓
Total Sulfide by Colourimetry (Automated Flow)	E395	1511317	1	17	5.8	5.0	✓
TSS by Gravimetry	E160	1511865	1	20	5.0	5.0	✓
Method Blanks (MB)							
Alkalinity Species by Titration	E290	1513196	1	10	10.0	5.0	✓
Ammonia by Fluorescence	E298	1514719	1	19	5.2	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	1504409	1	2	50.0	5.0	✓
Chloride in Water by IC	E235.Cl	1504407	1	15	6.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1512223	1	15	6.6	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1502770	1	18	5.5	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1509482	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	1504408	1	16	6.2	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1504404	1	20	5.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1504405	1	18	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1504406	1	15	6.6	5.0	✓
TDS by Gravimetry	E162	1511829	1	20	5.0	5.0	✓
Total Hexavalent Chromium (Cr VI) by IC	E532	1507092	1	18	5.5	5.0	✓
Total Mercury in Water by CVAAS	E508	1512452	1	18	5.5	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1504284	1	20	5.0	5.0	✓
Total Nitrogen by Colourimetry	E366	1514717	1	9	11.1	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1514718	1	12	8.3	5.0	✓
Total Sulfide by Colourimetry (Automated Flow)	E395	1511317	1	17	5.8	5.0	✓
TSS by Gravimetry	E160	1511865	1	20	5.0	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1514719	1	19	5.2	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	1504409	1	2	50.0	5.0	✓
Chloride in Water by IC	E235.Cl	1504407	1	15	6.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1512223	1	15	6.6	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1502770	1	18	5.5	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1509482	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	1504408	1	16	6.2	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1504404	1	20	5.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1504405	1	18	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1504406	1	15	6.6	5.0	✓
Total Hexavalent Chromium (Cr VI) by IC	E532	1507092	1	18	5.5	5.0	✓
Total Mercury in Water by CVAAS	E508	1512452	1	18	5.5	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1504284	1	20	5.0	5.0	✓
Total Nitrogen by Colourimetry	E366	1514717	1	9	11.1	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1514718	1	12	8.3	5.0	✓



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

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
<i>Analytical Methods</i>							
Matrix Spikes (MS) - Continued							
Total Sulfide by Colourimetry (Automated Flow)	E395	1511317	1	17	5.8	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
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.
Bromide in Water by IC (Low Level)	E235.Br-L 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 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 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 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 ALS Environmental - Vancouver	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 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 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.



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
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)
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Calgary	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 ₂ . 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 Nitrogen by Colourimetry	E366 ALS Environmental - Vancouver	Water	Chinchilla Scientific Nitrate Method, 2011	Following digestion, total nitrogen is determined colourimetrically using a discrete analyzer utilizing the vanadium chloride reduction method. This method of analysis is approved under US EPA 40 CFR Part 136 (May 2021).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U 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 Sulfide by Colourimetry (Automated Flow)	E395 ALS Environmental - Vancouver	Water	APHA 4500 -S E-Auto-Colorimetry	Sulfide is determined using the gas dialysis automated methylene blue colourimetric method. Results expressed "as H ₂ S" if reported represent the maximum possible H ₂ S concentration based on the total sulfide concentration in the sample. The H ₂ S calculation converts Total Sulphide as (S ₂ ⁻) and reports it as Total Sulphide as (H ₂ S)
Total Metals in Water by CRC ICPMS	E420 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. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Metals in Water by CRC ICPMS	E421 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. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Mercury in Water by CVAAS	E508 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 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.



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Total Hexavalent Chromium (Cr VI) by IC	E532 ALS Environmental - Waterloo	Water	APHA 3500-Cr C (Ion Chromatography)	Hexavalent Chromium is measured by Ion chromatography-Post column reaction and UV detection. Results are based on an un-filtered, field-preserved sample.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Vancouver	Water	APHA 2340B	"Hardness (as CaCO ₃), dissolved" is calculated from the sum of dissolved 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 (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.
Un-ionized Total Hydrogen Sulfide (calculated)	EC395 ALS Environmental - Vancouver	Water	APHA 4500 -S H	Un-ionized sulfide is calculated using results from total sulfide analysis, pH, temperature, and ionic strength of the sample. Calculation of un-ionized sulfide using total sulfide concentrations may be biased high due to particulate forms of sulfide measured during total sulfide testing.
Total Trivalent Chromium (Cr III) by Calculation	EC535 ALS Environmental - Waterloo	Water	APHA 3030B/6020A/EPA 7196A (mod)	Chromium (III)-Total is calculated as the difference between the total chromium and the total hexavalent chromium (Cr(VI)) results. The Limit of Reporting for Chromium (III) varies as a function of the test results.
Field pH,EC,Salinity, TDS, Cl ₂ ,ClO ₂ ,ORP,DO, Turbidity,T,T-P,o-PO ₄ ,NH ₃ ,Chloramine	EF001 ALS Environmental - Vancouver	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl ₂ ,ClO ₂ ,ORP,DO, Turbidity,T,T-P,o-PO ₄ ,NH ₃ or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

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.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Calgary	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Nitrogen in water	EP366 ALS Environmental - Vancouver	Water	APHA 4500-P J (mod)	Samples for total nitrogen analysis are digested using a heated persulfate digestion. Nitrogen compounds are converted to nitrate in this digestion.
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Vancouver	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.



<i>Preparation Methods</i>	<i>Method / Lab</i>	<i>Matrix</i>	<i>Method Reference</i>	<i>Method Descriptions</i>
Dissolved Metals Water Filtration	EP421 ALS Environmental - Vancouver	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Vancouver	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

QUALITY CONTROL REPORT

Work Order : **VA24B4298**
Client : Triton Environmental Consultants Ltd.
Contact : [Redacted]
Address : [Redacted]
Telephone : [Redacted]
Project : 11964
PO : 11964 - Task 20 - Phase 3C-4C
C-O-C number : ----
Sampler : ----
Site : Water Analysis
Quote number : VA23-TRIT100-012_V2
No. of samples received : 2
No. of samples analysed : 2

Page : 1 of 17
Laboratory : ALS Environmental - Vancouver
Account Manager : [Redacted]
Address : [Redacted]
Telephone : [Redacted]
Date Samples Received : 18-Jun-2024 19:00
Date Analysis Commenced : 20-Jun-2024
Issue Date : 02-Jul-2024 12:59

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
[Redacted]	Laboratory Analyst	Vancouver Metals, Burnaby, British Columbia
[Redacted]	Lab Assistant	Vancouver Metals, Burnaby, British Columbia
[Redacted]	Lab Analyst	Calgary Inorganics, Calgary, Alberta
[Redacted]	Analyst	Vancouver Metals, Burnaby, British Columbia
[Redacted]	Supervisor - Metals ICP Instrumentation	Vancouver Metals, Burnaby, British Columbia
[Redacted]	Department Manager - Inorganics	Vancouver Inorganics, Burnaby, British Columbia
[Redacted]	Senior Analyst	Waterloo Inorganics, Waterloo, Ontario
[Redacted]	Senior Analyst	Waterloo Metals, Waterloo, Ontario
[Redacted]		Vancouver Metals, Burnaby, British Columbia
[Redacted]	Account Manager Assistant	Vancouver Administration, Burnaby, British Columbia

Page : 2 of 17
Work Order : VA24B4298
Client : Triton Environmental Consultants Ltd.
Project : 11964



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: 1511829)											
FJ2401762-004	Anonymous	Solids, total dissolved [TDS]	----	E162	20	mg/L	1320	1320	0.568%	20%	----
Physical Tests (QC Lot: 1511865)											
FJ2401762-004	Anonymous	Solids, total suspended [TSS]	----	E160	3.0	mg/L	<3.0	<3.0	0	Diff <2x LOR	----
Physical Tests (QC Lot: 1513196)											
VA24B4298-002	WLNG DS 1	Alkalinity, total (as CaCO3)	----	E290	2.0	mg/L	6.7	6.5	0.2	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1504404)											
VA24B4298-001	WLNG US 1	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: 1504405)											
VA24B4298-001	WLNG US 1	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: 1504406)											
VA24B4298-001	WLNG US 1	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	1.72	1.73	0.006	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1504407)											
VA24B4298-001	WLNG US 1	Chloride	16887-00-6	E235.Cl	0.50	mg/L	0.54	0.54	0.001	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1504408)											
VA24B4298-001	WLNG US 1	Fluoride	16984-48-8	E235.F	0.020	mg/L	<0.020	<0.020	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1504409)											
VA24B4298-001	WLNG US 1	Bromide	24959-67-9	E235.Br-L	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1514717)											
VA24B4758-019	Anonymous	Nitrogen, total	7727-37-9	E366	0.030	mg/L	0.184	0.183	0.0001	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1514718)											
FJ2401788-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0058	0.0055	0.0003	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1514719)											
VA24B4298-001	WLNG US 1	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: 1509482)											
RG2400976-005	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	25.4	25.6	0.781%	20%	----
Total Sulfides (QC Lot: 1511317)											
CG2408385-002	Anonymous	Sulfide, total (as S)	18496-25-8	E395	0.0015	mg/L	<0.0015	<0.0015	0	Diff <2x LOR	----
Total Metals (QC Lot: 1504284)											
VA24B4298-001	WLNG US 1	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0898	0.0890	0.912%	20%	----
		Antimony, total	7440-36-0	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: 1504284) - continued											
VA24B4298-001	WLNG US 1	Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00011	0.00011	0.000003	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.00285	0.00288	0.934%	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	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000055	0.0000085	0.0000030	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	1.99	2.08	4.42%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.000050	mg/L	0.00054	0.00053	0.00001	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.036	0.037	0.0009	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	0.222	0.224	0.910%	20%	----
		Manganese, total	7439-96-5	E420	0.000010	mg/L	0.00144	0.00150	4.45%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000342	0.000366	0.000024	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.000050	mg/L	<0.000050	<0.000050	0	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	0.146	0.153	0.007	Diff <2x LOR	----
		Rubidium, total	7440-17-7	E420	0.000020	mg/L	0.00025	0.00025	0.000005	Diff <2x LOR	----
		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	4.17	4.18	0.225%	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	1.38	1.39	0.664%	20%	----
		Strontium, total	7440-24-6	E420	0.000020	mg/L	0.0115	0.0115	0.0327%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	0.58	0.59	0.008	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.000030	mg/L	0.00095	0.00113	0.00018	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000084	0.000086	0.000001	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: 1504284) - continued											
VA24B4298-001	WLNG US 1	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	<0.0030	<0.0030	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Total Metals (QC Lot: 1512452)											
VA24B4298-001	WLNG US 1	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1502770)											
KS2402293-001	Anonymous	Copper, dissolved	7440-50-8	E421	0.00040	mg/L	<0.00040	# 0.00180	0.00140	Diff <2x LOR	DUP-H
KS2402293-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0020	mg/L	0.0208	0.0201	3.57%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00020	mg/L	0.0173	0.0177	2.02%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00020	mg/L	0.00519	0.00516	0.724%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000040	mg/L	<0.000040	<0.000040	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000100	mg/L	<0.000100	<0.000100	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.020	mg/L	3.46	3.59	3.69%	20%	----
		Cadmium, dissolved	7440-43-9	E421	0.0000100	mg/L	<0.0000100	<0.0000100	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.100	mg/L	4.28	4.37	1.94%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00100	mg/L	<0.00100	<0.00100	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.020	mg/L	<0.020	<0.020	0	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000100	mg/L	<0.000100	<0.000100	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0020	mg/L	0.0026	0.0026	0.00007	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0100	mg/L	0.0994	0.0977	0.0017	Diff <2x LOR	----
		Manganese, dissolved	7439-96-5	E421	0.00020	mg/L	0.00086	0.00079	0.00007	Diff <2x LOR	----
		Molybdenum, dissolved	7439-98-7	E421	0.000100	mg/L	0.0123	0.0126	2.74%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00100	mg/L	<0.00100	<0.00100	0	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.100	mg/L	<0.100	<0.100	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.100	mg/L	0.824	0.848	0.024	Diff <2x LOR	----
		Rubidium, dissolved	7440-17-7	E421	0.00040	mg/L	0.00066	0.00081	0.00014	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000100	mg/L	<0.000100	<0.000100	0	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.100	mg/L	8.38	8.50	1.42%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.100	mg/L	190	188	1.28%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00040	mg/L	0.142	0.146	2.54%	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
Dissolved Metals (QC Lot: 1502770) - continued											
KS2402293-001	Anonymous	Sulfur, dissolved	7704-34-9	E421	1.00	mg/L	116	116	0.0628%	20%	----
		Tellurium, dissolved	13494-80-9	E421	0.00040	mg/L	<0.00040	<0.00040	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00060	mg/L	<0.00060	<0.00060	0	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00020	mg/L	0.00082	0.00080	0.00002	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000020	mg/L	0.000032	0.000026	0.000006	Diff <2x LOR	----
		Vanadium, dissolved	7440-62-2	E421	0.00100	mg/L	<0.00100	<0.00100	0	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0020	mg/L	<0.0020	<0.0020	0	Diff <2x LOR	----
Zirconium, dissolved	7440-67-7	E421	0.00060	mg/L	<0.00060	<0.00060	0	Diff <2x LOR	----		
Dissolved Metals (QC Lot: 1512223)											
VA24B4287-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Speciated Metals (QC Lot: 1507092)											
VA24B4298-001	WLNG US 1	Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----

Qualifiers

Qualifier	Description
DUP-H	Duplicate results outside ALS DQO, due to sample heterogeneity.



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: 1511829)						
Solids, total dissolved [TDS]	---	E162	10	mg/L	<10	---
Physical Tests (QCLot: 1511865)						
Solids, total suspended [TSS]	---	E160	3	mg/L	<3.0	---
Physical Tests (QCLot: 1513196)						
Alkalinity, total (as CaCO3)	---	E290	1	mg/L	<1.0	---
Anions and Nutrients (QCLot: 1504404)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	---
Anions and Nutrients (QCLot: 1504405)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	---
Anions and Nutrients (QCLot: 1504406)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	---
Anions and Nutrients (QCLot: 1504407)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	---
Anions and Nutrients (QCLot: 1504408)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	---
Anions and Nutrients (QCLot: 1504409)						
Bromide	24959-67-9	E235.Br-L	0.05	mg/L	<0.050	---
Anions and Nutrients (QCLot: 1514717)						
Nitrogen, total	7727-37-9	E366	0.03	mg/L	<0.030	---
Anions and Nutrients (QCLot: 1514718)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	---
Anions and Nutrients (QCLot: 1514719)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	---
Organic / Inorganic Carbon (QCLot: 1509482)						
Carbon, dissolved organic [DOC]	---	E358-L	0.5	mg/L	<0.50	---
Total Sulfides (QCLot: 1511317)						
Sulfide, total (as S)	18496-25-8	E395	0.0015	mg/L	<0.0015	---
Total Metals (QCLot: 1504284)						
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	---



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1504284) - continued						
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	----
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	----



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1512452)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1502770)						
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	----
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	----



Sub-Matrix: **Water**

<i>Analyte</i>	<i>CAS Number</i>	<i>Method</i>	<i>LOR</i>	<i>Unit</i>	<i>Result</i>	<i>Qualifier</i>
Dissolved Metals (QCLot: 1502770) - continued						
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	----
Dissolved Metals (QCLot: 1512223)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Speciated Metals (QCLot: 1507092)						
Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.0005	mg/L	<0.00050	----



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: 1511829)									
Solids, total dissolved [TDS]	----	E162	10	mg/L	1000 mg/L	108	85.0	115	----
Physical Tests (QCLot: 1511865)									
Solids, total suspended [TSS]	----	E160	3	mg/L	150 mg/L	94.3	85.0	115	----
Physical Tests (QCLot: 1513196)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	500 mg/L	109	85.0	115	----
Anions and Nutrients (QCLot: 1504404)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1504405)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	99.8	90.0	110	----
Anions and Nutrients (QCLot: 1504406)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1504407)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1504408)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 1504409)									
Bromide	24959-67-9	E235.Br-L	0.05	mg/L	0.5 mg/L	102	85.0	115	----
Anions and Nutrients (QCLot: 1514717)									
Nitrogen, total	7727-37-9	E366	0.03	mg/L	0.5 mg/L	105	75.0	125	----
Anions and Nutrients (QCLot: 1514718)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.05 mg/L	94.8	80.0	120	----
Anions and Nutrients (QCLot: 1514719)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	93.9	85.0	115	----
Organic / Inorganic Carbon (QCLot: 1509482)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	89.4	80.0	120	----
Total Sulfides (QCLot: 1511317)									
Sulfide, total (as S)	18496-25-8	E395	0.0015	mg/L	0.08 mg/L	107	80.0	120	----
Total Metals (QCLot: 1504284)									



Sub-Matrix: **Water**

Laboratory Control Sample (LCS) Report

Analyte	CAS Number	Method	LOR	Unit	Spike		Recovery (%)		Recovery Limits (%)		Qualifier
					Target Concentration	LCS	Low	High			
Total Metals (QCLot: 1504284) - continued											
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	102	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	105	80.0	120	----		
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	104	80.0	120	----		
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	100	80.0	120	----		
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	105	80.0	120	----		
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	98.2	80.0	120	----		
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	104	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	106	80.0	120	----		
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	102	80.0	120	----		
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	101	80.0	120	----		
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	99.7	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	104	80.0	120	----		
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	99.9	80.0	120	----		
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	99.1	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	101	80.0	120	----		
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	100	80.0	120	----		
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	101	80.0	120	----		
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	100	80.0	120	----		
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	101	80.0	120	----		
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	105	80.0	120	----		
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	104	80.0	120	----		
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	100	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	106	80.0	120	----		
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	110	80.0	120	----		
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	95.4	80.0	120	----		
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	103	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	102	80.0	120	----		
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	97.8	80.0	120	----		
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	107	80.0	120	----		
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	106	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: 1504284) - continued									
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	102	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	98.7	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	101	80.0	120	----
Total Metals (QCLot: 1512452)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	96.1	80.0	120	----
Dissolved Metals (QCLot: 1502770)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	106	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	103	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	112	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	110	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	98.8	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	97.0	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	107	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	102	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	102	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	105	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	105	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	103	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	99.6	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	98.1	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	105	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	106	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	106	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	116	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	104	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	111	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	107	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	103	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	95.3	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	112	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	103	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	109	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
Dissolved Metals (QCLot: 1502770) - continued									
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	104	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	105	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	96.6	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	101	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	104	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	101	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	109	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	106	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	110	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	96.5	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	84.6	80.0	120	----
Speciated Metals (QCLot: 1507092)									
Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.0005	mg/L	0.025 mg/L	100	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.

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: 1504404)										
VA24B4298-002	WLNG DS 1	Nitrate (as N)	14797-55-8	E235.NO3-L	2.56 mg/L	2.5 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1504405)										
VA24B4298-002	WLNG DS 1	Nitrite (as N)	14797-65-0	E235.NO2-L	0.505 mg/L	0.5 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 1504406)										
VA24B4298-002	WLNG DS 1	Sulfate (as SO4)	14808-79-8	E235.SO4	103 mg/L	100 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 1504407)										
VA24B4298-002	WLNG DS 1	Chloride	16887-00-6	E235.Cl	102 mg/L	100 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1504408)										
VA24B4298-002	WLNG DS 1	Fluoride	16984-48-8	E235.F	1.04 mg/L	1 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 1504409)										
VA24B4298-002	WLNG DS 1	Bromide	24959-67-9	E235.Br-L	0.519 mg/L	0.5 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 1514717)										
VA24B4953-001	Anonymous	Nitrogen, total	7727-37-9	E366	0.412 mg/L	0.4 mg/L	103	70.0	130	----
Anions and Nutrients (QCLot: 1514718)										
FJ2401788-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0479 mg/L	0.05 mg/L	95.7	70.0	130	----
Anions and Nutrients (QCLot: 1514719)										
VA24B4298-002	WLNG DS 1	Ammonia, total (as N)	7664-41-7	E298	0.0916 mg/L	0.1 mg/L	91.6	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1509482)										
RG2400976-005	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Total Sulfides (QCLot: 1511317)										
CG2408398-001	Anonymous	Sulfide, total (as S)	18496-25-8	E395	19.0 mg/L	20 mg/L	94.9	75.0	125	----
Total Metals (QCLot: 1504284)										
VA24B4298-002	WLNG DS 1	Aluminum, total	7429-90-5	E420	0.193 mg/L	0.2 mg/L	96.7	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0189 mg/L	0.02 mg/L	94.6	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Barium, total	7440-39-3	E420	0.0195 mg/L	0.02 mg/L	97.7	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0388 mg/L	0.04 mg/L	96.9	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0104 mg/L	0.01 mg/L	104	70.0	130	----
		Boron, total	7440-42-8	E420	0.090 mg/L	0.1 mg/L	89.9	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00398 mg/L	0.004 mg/L	99.6	70.0	130	----
		Calcium, total	7440-70-2	E420	3.66 mg/L	4 mg/L	91.4	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0100 mg/L	0.01 mg/L	100	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0392 mg/L	0.04 mg/L	97.9	70.0	130	----



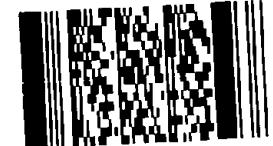
Sub-Matrix: **Water**

					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: 1504284) - continued										
VA24B4298-002	WLNG DS 1	Cobalt, total	7440-48-4	E420	0.0197 mg/L	0.02 mg/L	98.7	70.0	130	----
		Copper, total	7440-50-8	E420	0.0194 mg/L	0.02 mg/L	97.0	70.0	130	----
		Iron, total	7439-89-6	E420	1.92 mg/L	2 mg/L	96.0	70.0	130	----
		Lead, total	7439-92-1	E420	0.0197 mg/L	0.02 mg/L	98.6	70.0	130	----
		Lithium, total	7439-93-2	E420	0.0948 mg/L	0.1 mg/L	94.8	70.0	130	----
		Magnesium, total	7439-95-4	E420	0.941 mg/L	1 mg/L	94.1	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0189 mg/L	0.02 mg/L	94.7	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0191 mg/L	0.02 mg/L	95.3	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0389 mg/L	0.04 mg/L	97.2	70.0	130	----
		Phosphorus, total	7723-14-0	E420	8.97 mg/L	10 mg/L	89.7	70.0	130	----
		Potassium, total	7440-09-7	E420	3.84 mg/L	4 mg/L	96.1	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0190 mg/L	0.02 mg/L	95.2	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0398 mg/L	0.04 mg/L	99.6	70.0	130	----
		Silicon, total	7440-21-3	E420	9.33 mg/L	10 mg/L	93.3	70.0	130	----
		Silver, total	7440-22-4	E420	0.00405 mg/L	0.004 mg/L	101	70.0	130	----
		Sodium, total	7440-23-5	E420	1.88 mg/L	2 mg/L	94.1	70.0	130	----
		Strontium, total	7440-24-6	E420	0.0188 mg/L	0.02 mg/L	93.8	70.0	130	----
		Sulfur, total	7704-34-9	E420	20.1 mg/L	20 mg/L	101	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0373 mg/L	0.04 mg/L	93.3	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00396 mg/L	0.004 mg/L	99.1	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0194 mg/L	0.02 mg/L	96.9	70.0	130	----
		Tin, total	7440-31-5	E420	0.0191 mg/L	0.02 mg/L	95.4	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0370 mg/L	0.04 mg/L	92.5	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0197 mg/L	0.02 mg/L	98.4	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00403 mg/L	0.004 mg/L	101	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.0964 mg/L	0.1 mg/L	96.4	70.0	130	----
		Zinc, total	7440-66-6	E420	0.384 mg/L	0.4 mg/L	95.9	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0374 mg/L	0.04 mg/L	93.4	70.0	130	----
Total Metals (QCLot: 1512452)										
VA24B4298-002	WLNG DS 1	Mercury, total	7439-97-6	E508	0.000103 mg/L	0 mg/L	103	70.0	130	----
Dissolved Metals (QCLot: 1502770)										
KS2402294-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	1.05 mg/L	1 mg/L	105	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0999 mg/L	0.1 mg/L	99.9	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.107 mg/L	0.1 mg/L	107	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	----	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.203 mg/L	0.2 mg/L	102	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.0458 mg/L	0.05 mg/L	91.6	70.0	130	----
		Boron, dissolved	7440-42-8	E421	ND mg/L	----	ND	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.0201 mg/L	0.02 mg/L	101	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0510 mg/L	0.05 mg/L	102	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.200 mg/L	0.2 mg/L	100	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0971 mg/L	0.1 mg/L	97.1	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
Dissolved Metals (QCLot: 1502770) - continued										
KS2402294-001	Anonymous	Copper, dissolved	7440-50-8	E421	0.0940 mg/L	0.1 mg/L	94.0	70.0	130	----
		Iron, dissolved	7439-89-6	E421	9.72 mg/L	10 mg/L	97.2	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0944 mg/L	0.1 mg/L	94.4	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.498 mg/L	0.5 mg/L	99.6	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.1000 mg/L	0.1 mg/L	100.0	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.108 mg/L	0.1 mg/L	108	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.197 mg/L	0.2 mg/L	98.4	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	57.3 mg/L	50 mg/L	114	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	ND mg/L	----	ND	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.102 mg/L	0.1 mg/L	102	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	ND mg/L	----	ND	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	51.3 mg/L	50 mg/L	102	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.0194 mg/L	0.02 mg/L	97.1	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	ND mg/L	----	ND	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.210 mg/L	0.2 mg/L	105	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.0189 mg/L	0.02 mg/L	94.4	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.103 mg/L	0.1 mg/L	103	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0992 mg/L	0.1 mg/L	99.2	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.204 mg/L	0.2 mg/L	102	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.100 mg/L	0.1 mg/L	100	70.0	130	----
Uranium, dissolved	7440-61-1	E421	ND mg/L	----	ND	70.0	130	----		
Vanadium, dissolved	7440-62-2	E421	0.520 mg/L	0.5 mg/L	104	70.0	130	----		
Zinc, dissolved	7440-66-6	E421	2.00 mg/L	2 mg/L	100.0	70.0	130	----		
Zirconium, dissolved	7440-67-7	E421	0.211 mg/L	0.2 mg/L	106	70.0	130	----		
Dissolved Metals (QCLot: 1512223)										
VA24B4287-002	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000849 mg/L	0 mg/L	84.9	70.0	130	----
Speciated Metals (QCLot: 1507092)										
VA24B4298-001	WLNG US 1	Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.0421 mg/L	0.04 mg/L	105	70.0	130	----



Report To Contact and company name below will appear on the final report		Report Format / Distribution			Select Service Level Below - Contact your AM																		
Company: Triton Environmental		Select Report Format: <input type="checkbox"/> EXCEL <input type="checkbox"/> EDD (DIGITAL)			Regular [R] <input type="checkbox"/> Standard TAT if received by 3						EMERGENCY <input type="checkbox"/> 1 Business												
Contact: [Redacted]		Quality Control (QC) Report with Report <input type="checkbox"/> YES <input type="checkbox"/> NO			4 day [P4-20%] <input type="checkbox"/>			3 day [P3-25%] <input type="checkbox"/>			2 day [P2-50%] <input type="checkbox"/>			Same Day, 200% (Lab)									
Phone: [Redacted]		Compare Results to Criteria on Report - provide details below if box checked			Date and Time Required for all E&P TATs:																		
Street: [Redacted]		Select Distribution: <input type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX			For tests that can not be performed according to the service level see																		
City/Province: [Redacted]		Email 1 or Fax [Redacted]			Analysis I																		
Postal Code: [Redacted]		Email 2 [Redacted]																					
Email 3 [Redacted]																							
Invoice To		Invoice Distribution			Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below																		
Same as Report To <input type="checkbox"/> YES <input type="checkbox"/> NO		Select Invoice Distribution: <input type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX																					
Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO		Email 1 or Fax [Redacted]																					
Company: [Redacted]		Email 2 [Redacted]																					
Contact: [Redacted]																							
Project Information				Oil and Gas Required Fields (client use)																			
ALS Account # / Quote #: VA23-TRIT100-012				AFE/Cost Center:				PO#															
Job #: 11964				Major/Minor Code:				Routing Code:															
PO / AFE: 11964 - Task 20 - Phase 3C-4C				Requisitioner:																			
LSD:				Location:																			
ALS Lab Work Order # (lab use only):				ALS Contact: [Redacted]				Sampler:															
ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)			Date (dd-mmm-yy)		Time (hh:mm)		Sample Type	Total metals + mercury	Dissolved metals + mercury	Total hexavalent chromium	Total trivalent chromium	TSS	TDS	Nutrients (ammonia, ammonium, total nitrogen, total phosphorus)	Total sulfide (low) (as H2S)	Un-ionized Sulfide (low)	Anions scan (Br, Cl, F, NO2, NO3, SO4)	General parameters (alkalinity)	DOC	SAMPLES ON HOLD	Sample is hazardous (please provide further details)	NUMBER OF CONTAINERS
WLNG US 1	pH: 7.2 cond: 27 µS/cm temp: 10.9 °C			18-JUN-24		09:33		Water	R	R	R	R	R	R	R	R	R	R	R	R	R	N	9
WLNG DS 1	pH: 7.3 cond: 21 µS/cm temp: 11.4 °C			18-JUN-24		10:00		Water	R	R	R	R	R	R	R	R	R	R	R	R	N	9	
Duplicate	Field Blank			Water		Water		Water	R	R	R	R	R	R	R	R	R	R	R	R	N	9	
Trip Blank	Field Blank			Water		Water		Water	R	R	R	R	R	R	R	R	R	R	R	R	N	6	
Trip Blank	Field Blank			Water		Water		Water	R	R	R	R	R	R	R	R	R	R	R	R	N	6	
Drinking Water (DW) Samples¹ (client use)				Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)				SAMPLE CONDITION AS RECEIVED (lab use only)															
Are samples taken from a Regulated DW System?				Triton project # 11964				Frozen <input type="checkbox"/> SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/>						Ice Packs <input type="checkbox"/> Ice Cubes <input type="checkbox"/> Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/>									
Are samples for human consumption/ use?								Cooling Initiated <input type="checkbox"/>						INITIAL COOLER TEMPERATURES °C						FINAL COOLER TEMPERATURES °C			
SHIPMENT RELEASE (client use)				INITIAL SHIPMENT RECEPTION (lab use only)				FINAL SHIPMENT RECEPTION (lab use only)															
Released by: [Redacted]		18 June 24		Time: 18:56		Received by: [Redacted]		Date: [Redacted]		Time: [Redacted]		Received by: [Redacted]		Date: 6/18		Time: [Redacted]		6					



**Eagle Mountain - Woodfibre Gas Pipeline Project
Waste Discharge Permit PE-110163 Report**

Reporting Week	June 17 th to June 23 rd , 2024
Report #	13
Appendix D	D-4

Woodfibre Site Receiving Environment Field Notes and Logs



FortisBC Eagle Mountain-Woodfibre Gas Pipeline

Water Discharge Authorization Water Quality Monitoring

2024-6-18-Chycoski-FA4B6

Project Component:	Tunnel	Site Name:	Receiving Environment - Downstream of Discharge
Inspection Date:	06/18/2024	Location:	WLNG
Triton QP:	Lily Chycoski	Latitude/Longitude:	49.6683 -123.247958
Temperature(c):	Low 3 High 13	Permit:	PE 110136
Weather Conditions:	Overcast	Ground Conditions:	Damp

Observations

Time: 10:00:24 **Flow Volume (visual):** moderate

Notes: Conductivity: 21 micro siemens per cm

Odour Detected?: No **Notes:**

Unusual Colour?: No **Notes:**

Unusual Observations?: No **Notes:**

Sheen on Water?: No **Notes:**

Samples Collected - Parameters

Total Metals + Mercury	Yes	General Parameters (Alkalinity)	Yes	Other Sample: Total hexavalent chromium and total trivalent chromium
Dissolved Metals + Mercury	Yes	Total Sulfide, Unionized Sulfide	Yes	
TSS	Yes	Anions	Yes	QA Samples: N/A Total hexavalent chromium and total trivalent chromium
TDS	Yes	VOC/VPH	N/A	
Nutrients	Yes	EPH, PAH, LEPH/HEPH	N/A	
DOC	Yes	Trout LC50	N/A	

Logger Maintenance

Logger Maintenance Performed?	No	Photo of COC with Lab Signature?	Yes
Describe Logger Maintenance			

Photos



Photo: 1
Location: WLNG DS 1
Description: US view



Photo: 2
Location: WLNG DS 1
Description: Across view

Photos



Photo: 3
Location: WLNG DS 1
Description: DS view

ALS Sample #	Sample Identification and Coordinates (This description will appear on the report)	Date	Time	Sample Type
WLNG DS 1	10.9 °C	18 Jun 24	09:55	Water
WLNG DS 1	10.9 °C	18 Jun 24	10:00	Water

Photo: 4
Location: WLNG DS 1
Description: Lab COC

Sign Off

Report Prepared By: Lily Chycoski

Report Reviewed:

Report Reviewer:

Professional(s) of Record:

Name:

Designation:

Designation Number:



FortisBC Eagle Mountain-Woodfibre Gas Pipeline

Water Discharge Authorization Water Quality Monitoring

2024-6-18-Chycoski-8C490

Project Component:	Tunnel	Site Name:	Receiving Environment - Upstream of Discharge
Inspection Date:	06/18/2024	Location:	WLNG
Triton QP:	Lily Chycoski	Latitude/Longitude:	49.669455 -123.25087
Temperature(c):	Low 3 High 13	Permit:	PE 110136
Weather Conditions:	Overcast	Ground Conditions:	Damp

Observations

Time: 09:32:47 **Flow Volume (visual):** moderate

Notes: Conductivity: 27 micro siemens per cm

Odour Detected?: No **Notes:**

Unusual Colour?: No **Notes:**

Unusual Observations?: No **Notes:**

Sheen on Water?: No **Notes:**

Samples Collected - Parameters

Total Metals + Mercury	Yes	General Parameters (Alkalinity)	Yes	Other Sample: Total hexavalent chromium and total trivalent chromium
Dissolved Metals + Mercury	Yes	Total Sulfide, Unionized Sulfide	Yes	
TSS	Yes	Anions	Yes	QA Samples: N/A Total hexavalent chromium and total trivalent chromium
TDS	Yes	VOC/VPH	N/A	
Nutrients	Yes	EPH, PAH, LEPH/HEPH	N/A	
DOC	Yes	Trout LC50	N/A	

Logger Maintenance

Logger Maintenance Performed?	No	Photo of COC with Lab Signature?	Yes
Describe Logger Maintenance			

Photos



Photo: 1
Location: WLNG US 1
Description: US view



Photo: 2
Location: WLNG US 1
Description: Across view

Photos



Photo: 3
Location: WLNG US 1
Description: DS view

Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 888 3878

ALS Analytical Services Ltd. (ALS) 1700 West Georgia Street, Vancouver, BC V6G 1Y6

Project Name: WLNG US 1

Sample ID: 7-2, 7-3

Sample Type: Water

Analysis Request: pH, Temperature, Conductivity, Turbidity, Total Suspended Solids (TSS), Total Dissolved Solids (TDS), Total Hardness (CaCO₃), Ammonia Nitrogen (NH₃-N), Nitrite Nitrogen (NO₂-N), Nitrate Nitrogen (NO₃-N), Total Nitrogen (TN), Total Phosphorus (TP), Total Kjeldahl Nitrogen (TKN), Chlorophyll a (Chl a), Chlorophyll b (Chl b), Chlorophyll a+b (Chl a+b), Secchi Disk Depth (SD), Dissolved Oxygen (DO), Free Chlorine (FC), Total Chlorine (TC), Free Chlorine (FC), Total Chlorine (TC), Free Chlorine (FC), Total Chlorine (TC)

Signature: [Signature] Date: 18 June 24

Photo: 4
Location: WLNG US 1
Description: Lab COC



2024-6-18-Chycoski-8C490

Sign Off

Report Prepared By: Lily Chycoski

Report Reviewed:

Report Reviewer:

Professional(s) of Record:

Name:

Designation:

Designation Number:

WLNG US Sonde 2024-06-17 to 2024-06-24

Received	Temperature C	Specific Conductivity $\mu\text{S/cm}$	Salinity PSU	pH	ORP mV	Dissolved Oxygen Concentration mg/L	Turbidity NTU
6/17/2024 0:00	10.56	13.81	0.01	6.99	304.25	10.01	0.08
6/17/2024 0:10	10.55	13.63	0.01	7.01	304.32	10.01	0.09
6/17/2024 0:20	10.55	13.84	0.01	6.97	304.65	10.01	0.11
6/17/2024 0:30	10.54	13.64	0.01	6.98	306.74	10.03	0.09
6/17/2024 0:40	10.54	13.82	0.01	6.98	304.86	10.03	0.08
6/17/2024 0:50	10.53	13.75	0.01	7.01	305.98	10	0.09
6/17/2024 1:00	10.53	13.85	0.01	6.98	305.12	10	0.08
6/17/2024 1:10	10.52	13.76	0.01	7.04	302.47	10	0.11
6/17/2024 1:20	10.51	13.85	0.01	6.99	302.93	10.03	0.08
6/17/2024 1:30	10.5	13.83	0.01	7.01	302.09	10.02	0.12
6/17/2024 1:40	10.49	13.87	0.01	6.99	302.74	10.04	0.09
6/17/2024 1:50	10.48	13.8	0.01	7	303.07	10.03	0.1
6/17/2024 2:00	10.47	13.85	0.01	6.99	301.91	10.03	0.09
6/17/2024 2:10	10.46	13.65	0.01	7.04	300.03	10.02	0.09
6/17/2024 2:20	10.45	13.81	0.01	6.99	302.22	10.05	0.1
6/17/2024 2:30	10.44	13.78	0.01	7.02	301.6	10.03	0.07
6/17/2024 2:40	10.43	13.86	0.01	6.99	303.24	10.05	0.08
6/17/2024 2:50	10.43	13.73	0.01	7.04	300.8	10.05	0.08
6/17/2024 3:00	10.42	13.82	0.01	6.99	302.99	10.07	0.24
6/17/2024 3:10	10.42	13.62	0.01	7.06	297.44	10.05	0.08
6/17/2024 3:20	10.41	13.81	0.01	6.99	298.45	10.06	0.11
6/17/2024 3:30	10.41	13.74	0.01	7	300.56	10.06	0.1
6/17/2024 3:40	10.41	13.85	0.01	6.97	302.68	10.05	0.07
6/17/2024 3:50	10.41	13.66	0.01	7.01	301.14	10.06	0.1
6/17/2024 4:00	10.41	13.82	0.01	6.98	301.43	10.05	0.11
6/17/2024 4:10	10.4	13.79	0.01	6.99	300.38	10.04	0.07
6/17/2024 4:20	10.4	13.85	0.01	6.97	301.51	10.05	0.08
6/17/2024 4:30	10.39	13.78	0.01	6.97	300.82	10.05	0.07
6/17/2024 4:40	10.39	13.85	0.01	6.97	301.05	10.04	0.1
6/17/2024 4:50	10.38	13.84	0.01	6.98	301.99	10.05	0.1
6/17/2024 5:00	10.38	13.83	0.01	6.97	301.28	10.04	0.1
6/17/2024 5:10	10.37	13.83	0.01	7.03	299.76	10.06	0.1
6/17/2024 5:20	10.37	13.85	0.01	6.97	301.96	10.07	0.08
6/17/2024 5:30	10.37	13.64	0.01	7.01	299.43	10.07	0.1
6/17/2024 5:40	10.37	13.86	0.01	6.97	302.44	10.05	0.08
6/17/2024 5:50	10.36	13.67	0.01	6.97	302.02	10.06	0.11
6/17/2024 6:00	10.37	13.82	0.01	6.98	302.09	10.08	0.24
6/17/2024 6:10	10.36	13.67	0.01	7.01	300.95	10.07	0.13
6/17/2024 6:20	10.37	13.84	0.01	6.97	303.91	10.06	0.11
6/17/2024 6:30	10.37	13.64	0.01	6.99	303.05	10.05	0.1
6/17/2024 6:40	10.37	13.85	0.01	6.98	302.84	10.05	0.09
6/17/2024 6:50	10.38	13.82	0.01	7.02	301.41	10.09	0.09
6/17/2024 7:00	10.38	13.84	0.01	6.97	302.02	10.08	0.1

WLNG US Sonde 2024-06-17 to 2024-06-24

6/17/2024 7:10	10.39	13.64	0.01	7.03	300.64	10.1	0.09
6/17/2024 7:20	10.39	13.85	0.01	7.01	301.58	10.08	0.1
6/17/2024 7:30	10.4	13.8	0.01	7.07	299.67	10.09	0.07
6/17/2024 7:40	10.41	13.82	0.01	7.01	301.9	10.08	0.16
6/17/2024 7:50	10.42	13.75	0.01	7.08	299.31	10.09	0.09
6/17/2024 8:00	10.43	13.81	0.01	7.02	300.18	10.1	0.09
6/17/2024 8:10	10.44	13.76	0.01	7.07	297.61	10.08	0.2
6/17/2024 8:20	10.45	13.82	0.01	7	297.77	10.07	0.09
6/17/2024 8:30	10.45	13.82	0.01	7.03	295.74	10.08	0.1
6/17/2024 8:40	10.46	13.79	0.01	7	298.84	10.09	0.08
6/17/2024 8:50	10.47	13.65	0.01	7.01	297.34	10.09	0.1
6/17/2024 9:00	10.49	13.46	0.01	7.02	298.3	10.12	0.12
6/17/2024 9:10	10.52	13.09	0.01	7.05	296.63	10.09	0.14
6/17/2024 9:20	10.55	13.08	0.01	7.03	300.09	10.11	0.19
6/17/2024 9:30	10.57	12.91	0.01	7.09	297.58	10.09	0.1
6/17/2024 9:40	10.6	12.99	0.01	7.02	300.58	10.1	0.11
6/17/2024 9:50	10.62	12.92	0.01	7.08	297.38	10.08	0.11
6/17/2024 10:00	10.65	13	0.01	7.02	301.93	10.08	0.09
6/17/2024 10:10	10.67	12.87	0.01	7.06	300.84	10.1	0.12
6/17/2024 10:20	10.69	13.16	0.01	7.03	301.61	10.07	0.13
6/17/2024 10:30	10.71	13.05	0.01	7.1	297.27	10.08	0.1
6/17/2024 10:40	10.73	13.25	0.01	7.05	300.49	10.06	0.06
6/17/2024 10:50	10.74	13.26	0.01	7.12	298.16	10.07	0.13
6/17/2024 11:00	10.75	13.32	0.01	7.04	301.92	10.07	0.12
6/17/2024 11:10	10.76	13.37	0.01	7.12	299.86	10.06	0.11
6/17/2024 11:20	10.79	13.36	0.01	7.05	300.8	10.07	0.09
6/17/2024 11:30	10.8	13.39	0.01	7.17	296.15	10.06	0.16
6/17/2024 11:40	10.82	13.4	0.01	7.04	301.75	10.05	0.07
6/17/2024 11:50	10.84	13.2	0.01	7.09	301.12	10.04	0.12
6/17/2024 12:00	10.85	13.46	0.01	7.07	301.04	10.03	0.11
6/17/2024 12:10	10.87	13.37	0.01	7.09	298.07	10.03	0.08
6/17/2024 12:20	10.89	13.47	0.01	7.06	298.53	10.05	0.1
6/17/2024 12:30	10.9	13.47	0.01	7.12	295.61	10.06	0.13
6/17/2024 12:40	10.92	13.52	0.01	7.05	298.09	10.02	0.1
6/17/2024 12:50	10.93	13.43	0.01	7.08	298.02	10.04	0.09
6/17/2024 13:00	10.93	13.54	0.01	7.05	299.49	10.01	0.46
6/17/2024 13:10	10.94	13.49	0.01	7.13	294.31	10.01	0.11
6/17/2024 13:20	10.97	13.56	0.01	7.07	299.41	10.02	0.11
6/17/2024 13:30	10.98	13.34	0.01	7.13	294.44	10.03	0.08
6/17/2024 13:40	11	13.57	0.01	7.07	299.05	9.99	0.14
6/17/2024 13:50	11.02	13.48	0.01	7.11	294.08	9.98	3.27
6/17/2024 14:00	11.03	13.57	0.01	7.07	296.28	9.98	0.13
6/17/2024 14:10	11.04	13.59	0.01	7.15	292.96	10.01	0.11
6/17/2024 14:20	11.06	13.54	0.01	7.06	298.44	9.99	0.14
6/17/2024 14:30	11.1	13.48	0.01	7.09	298.76	9.98	0.12
6/17/2024 14:40	11.13	13.53	0.01	7.08	298.96	9.99	0.11
6/17/2024 14:50	11.16	13.53	0.01	7.09	298.34	9.99	0.2

WLNG US Sonde 2024-06-17 to 2024-06-24

6/17/2024 15:00	11.2	13.6	0.01	7.08	296.95	9.98	0.09
6/17/2024 15:10	11.23	13.61	0.01	7.13	297.26	9.96	0.11
6/17/2024 15:20	11.28	13.55	0.01	7.08	299	9.98	0.13
6/17/2024 15:30	11.33	13.59	0.01	7.14	296.52	9.96	0.14
6/17/2024 15:40	11.39	13.54	0.01	7.09	298.77	9.93	0.11
6/17/2024 15:50	11.43	13.52	0.01	7.09	299.99	9.91	0.12
6/17/2024 16:00	11.46	13.58	0.01	7.05	300.95	9.88	0.13
6/17/2024 16:10	11.45	13.58	0.01	7.07	302.95	9.88	0.12
6/17/2024 16:20	11.44	13.62	0.01	7.06	303.01	9.89	0.11
6/17/2024 16:30	11.43	13.45	0.01	7.07	301.74	9.88	0.22
6/17/2024 16:40	11.43	13.65	0.01	7.08	300.18	9.9	0.14
6/17/2024 16:50	11.43	13.52	0.01	7.11	298.7	9.89	0.15
6/17/2024 17:00	11.42	13.62	0.01	7.06	301.53	9.87	0.15
6/17/2024 17:10	11.4	13.64	0.01	7.08	297.45	9.89	0.15
6/17/2024 17:20	11.38	13.68	0.01	7.04	299.73	9.86	0.14
6/17/2024 17:30	11.36	13.66	0.01	7.07	298.41	9.92	0.13
6/17/2024 17:40	11.36	13.7	0.01	7.04	299.92	9.9	0.11
6/17/2024 17:50	11.35	13.64	0.01	7.12	298.95	9.9	0.13
6/17/2024 18:00	11.34	13.69	0.01	7.04	302.3	9.88	0.14
6/17/2024 18:10	11.33	13.61	0.01	7.09	300.01	9.87	0.15
6/17/2024 18:20	11.32	13.74	0.01	7.02	302.78	9.89	2.57
6/17/2024 18:30	11.31	13.65	0.01	7.06	302.49	9.89	0.13
6/17/2024 18:40	11.3	13.73	0.01	7.02	304.18	9.88	0.12
6/17/2024 18:40	11.3	13.73	0.01	7.02	304.18	9.88	0.12
6/17/2024 18:50	11.29	13.6	0.01	7.04	304.59	9.87	0.13
6/17/2024 19:00	11.29	13.79	0.01	7.02	305.54	9.88	0.11
6/17/2024 19:10	11.28	13.68	0.01	7.06	302.46	9.87	0.28
6/17/2024 19:20	11.26	13.8	0.01	7.01	302.6	9.87	0.13
6/17/2024 19:30	11.25	13.71	0.01	7.06	303.2	9.87	0.14
6/17/2024 19:40	11.23	13.83	0.01	6.98	306.29	9.89	0.11
6/17/2024 19:50	11.22	13.76	0.01	7.03	306.47	9.88	0.13
6/17/2024 20:00	11.2	13.73	0.01	6.99	307.43	9.89	0.13
6/17/2024 20:10	11.19	13.76	0.01	7	306.72	9.88	0.12
6/17/2024 20:20	11.18	13.83	0.01	6.98	306.2	9.89	0.14
6/17/2024 20:30	11.16	13.8	0.01	7.06	303.1	9.91	0.13
6/17/2024 20:40	11.15	13.82	0.01	6.98	307.22	9.89	0.12
6/17/2024 20:50	11.14	13.72	0.01	7.01	307.03	9.89	0.12
6/17/2024 21:00	11.13	13.87	0.01	6.97	308.21	9.89	0.12
6/17/2024 21:10	11.12	13.78	0.01	7.04	306.72	9.9	0.11
6/17/2024 21:20	11.11	13.85	0.01	6.97	309.01	9.89	0.17
6/17/2024 21:30	11.1	13.88	0.01	7.05	301.22	9.89	0.13
6/17/2024 21:40	11.09	13.85	0.01	6.97	306.21	9.89	0.15
6/17/2024 21:50	11.08	13.85	0.01	6.97	308.22	9.91	0.1
6/17/2024 22:00	11.08	13.85	0.01	6.97	305.69	9.92	0.11
6/17/2024 22:10	11.07	13.66	0.01	7.03	304.64	9.91	0.18
6/17/2024 22:20	11.06	13.9	0.01	6.99	307.67	9.91	0.15
6/17/2024 22:30	11.05	13.72	0.01	6.97	305.59	9.91	0.09

WLNG US Sonde 2024-06-17 to 2024-06-24

6/17/2024 22:40	11.04	13.91	0.01	6.98	306.62	9.91	0.14
6/17/2024 22:50	11.03	13.85	0.01	7.05	301.64	9.91	0.11
6/17/2024 23:00	11.02	13.9	0.01	6.97	306.68	9.93	0.12
6/17/2024 23:10	11.02	13.85	0.01	7.02	306.17	9.93	0.13
6/17/2024 23:20	11.01	13.91	0.01	6.98	308.85	9.91	0.3
6/17/2024 23:30	11	13.84	0.01	7.04	306.11	9.92	0.11
6/17/2024 23:40	10.99	13.9	0.01	6.98	309.12	9.92	0.14
6/17/2024 23:50	10.98	13.87	0.01	7.01	302.82	9.94	0.1
6/18/2024 0:00	10.98	13.87	0.01	6.98	304.54	9.95	0.11
6/18/2024 0:10	10.97	13.61	0.01	7.03	303.54	9.94	0.08
6/18/2024 0:20	10.96	13.88	0.01	7	304.79	9.92	0.11
6/18/2024 0:30	10.95	13.87	0.01	6.98	305.11	9.92	0.11
6/18/2024 0:40	10.94	13.88	0.01	6.98	303.82	9.96	0.13
6/18/2024 0:50	10.93	13.9	0.01	7.02	301.45	9.94	0.1
6/18/2024 1:00	10.93	13.96	0.01	6.97	303.35	9.94	0.08
6/18/2024 1:10	10.92	13.74	0.01	7.05	297.94	9.95	0.08
6/18/2024 1:20	10.91	13.93	0.01	6.99	301.6	9.94	0.42
6/18/2024 1:30	10.9	13.64	0.01	7.02	302.06	9.97	0.1
6/18/2024 1:40	10.9	13.93	0.01	6.95	305.95	9.96	0.12
6/18/2024 1:50	10.89	13.67	0.01	6.99	304.82	9.95	0.11
6/18/2024 2:00	10.88	13.93	0.01	6.99	306.03	9.96	0.11
6/18/2024 2:10	10.88	13.93	0.01	6.97	305.78	9.96	0.09
6/18/2024 2:20	10.87	13.97	0.01	6.98	305.75	9.95	0.15
6/18/2024 2:30	10.86	13.83	0.01	6.97	307.93	9.95	0.13
6/18/2024 2:40	10.86	14.03	0.01	6.97	306.27	9.95	0.11
6/18/2024 2:50	10.85	13.78	0.01	7	305.55	9.96	0.1
6/18/2024 3:00	10.84	14	0.01	6.97	306.63	9.95	0.18
6/18/2024 3:10	10.84	14.02	0.01	6.99	304.82	9.98	0.1
6/18/2024 3:20	10.83	14.08	0.01	6.96	304.03	9.97	0.12
6/18/2024 3:30	10.83	13.86	0.01	7.03	300.55	9.97	0.11
6/18/2024 3:40	10.82	14	0.01	6.96	303.53	9.97	0.35
6/18/2024 3:50	10.82	13.81	0.01	6.97	306.26	9.96	0.11
6/18/2024 4:00	10.81	14.06	0.01	6.97	305.43	9.98	0.11
6/18/2024 4:10	10.81	14.03	0.01	7.03	304.46	9.98	0.09
6/18/2024 4:20	10.8	13.99	0.01	6.96	306.55	9.97	0.11
6/18/2024 4:30	10.8	13.89	0.01	7	304.72	9.97	0.11
6/18/2024 4:40	10.8	14.04	0.01	6.97	306.46	9.99	0.08
6/18/2024 4:50	10.79	13.85	0.01	6.99	306.22	9.97	0.13
6/18/2024 5:00	10.79	14.05	0.01	6.97	304.84	9.97	0.1
6/18/2024 5:10	10.78	13.8	0.01	7.04	304.09	9.96	0.11
6/18/2024 5:20	10.78	14.14	0.01	6.96	307.19	9.97	0.1
6/18/2024 5:30	10.78	14.03	0.01	7	303.8	9.98	0.1
6/18/2024 5:40	10.77	14.02	0.01	6.95	305.99	9.97	0.08
6/18/2024 5:50	10.77	14.04	0.01	6.97	307.43	10	0.1
6/18/2024 6:00	10.77	14.13	0.01	6.94	306.8	10	0.15
6/18/2024 6:10	10.77	13.95	0.01	7.02	304.63	10	0.12
6/18/2024 6:20	10.77	14.05	0.01	6.97	306.05	9.99	0.14

WLNG US Sonde 2024-06-17 to 2024-06-24

6/18/2024 6:30	10.77	14.04	0.01	7	304.98	10	0.51
6/18/2024 6:40	10.77	14.1	0.01	6.97	308.37	9.99	0.2
6/18/2024 6:50	10.77	14.03	0.01	7	306.07	9.99	0.13
6/18/2024 7:00	10.78	14.12	0.01	6.99	307.8	10	0.12
6/18/2024 7:10	10.78	14.07	0.01	7.04	302.55	10	0.1
6/18/2024 7:20	10.78	14.1	0.01	6.98	305.04	10	0.13
6/18/2024 7:30	10.78	14.04	0.01	6.99	303.98	10	0.11
6/18/2024 7:40	10.79	14.13	0.01	6.98	304.26	10.02	0.29
6/18/2024 7:50	10.8	14.06	0.01	6.99	302.47	10	0.1
6/18/2024 8:00	10.8	14.1	0.01	6.98	301.93	10.01	0.18
6/18/2024 8:10	10.82	14.05	0.01	7.05	301.48	10.03	0.12
6/18/2024 8:20	10.83	14.04	0.01	6.99	302.62	10.02	0.13
6/18/2024 8:30	10.85	14.01	0.01	7	305.41	10.04	0.13
6/18/2024 8:40	10.87	13.83	0.01	6.98	306.17	10.03	0.12
6/18/2024 8:50	10.89	13.63	0.01	7.05	304.06	10.04	0.1
6/18/2024 9:00	10.91	13.66	0.01	7.03	305.44	10.02	0.14
6/18/2024 9:10	10.93	13.56	0.01	7.08	303.2	10.03	0.14
6/18/2024 9:20	10.95	13.55	0.01	7.03	303.51	10.03	0.09
6/18/2024 9:30	10.97	13.47	0.01	7.1	301.75	10.02	0.11
6/18/2024 9:40	10.99	13.55	0.01	7.04	304.05	10.03	0.19
6/18/2024 9:50	11.02	13.53	0.01	7.16	299.89	10.03	0.13
6/18/2024 10:00	11.04	13.52	0.01	7.05	301.96	10.04	0.15
6/18/2024 10:10	11.07	13.52	0.01	7.12	300.05	10.03	0.14
6/18/2024 10:20	11.09	13.51	0.01	7.06	303.19	10.03	0.16
6/18/2024 10:30	11.11	13.49	0.01	7.12	296.15	10.02	0.11
6/18/2024 10:40	11.14	13.51	0.01	7.07	300.17	10.02	0.14
6/18/2024 10:50	11.16	13.51	0.01	7.13	298.79	10.02	0.11
6/18/2024 11:00	11.2	13.51	0.01	7.08	301.18	10.02	0.11
6/18/2024 11:10	11.24	13.52	0.01	7.14	298.51	10.01	0.12
6/18/2024 11:20	11.27	13.52	0.01	7.08	298.97	10	0.13
6/18/2024 11:30	11.3	13.48	0.01	7.15	299.45	10	0.15
6/18/2024 11:40	11.34	13.55	0.01	7.13	300.17	9.98	0.19
6/18/2024 11:50	11.38	13.53	0.01	7.09	298.9	9.98	0.12
6/18/2024 12:00	11.42	13.55	0.01	7.09	297.62	9.97	0.12
6/18/2024 12:10	11.51	13.47	0.01	7.16	297.47	9.96	0.13
6/18/2024 12:20	11.55	13.57	0.01	7.11	299.42	9.96	0.13
6/18/2024 12:30	11.59	13.51	0.01	7.15	298.8	9.94	0.14
6/18/2024 12:40	11.63	13.54	0.01	7.11	300.09	9.91	0.15
6/18/2024 12:50	11.76	13.47	0.01	7.11	301.11	9.93	0.14
6/18/2024 13:00	11.78	13.57	0.01	7.11	300.59	9.89	0.14
6/18/2024 13:10	11.85	13.51	0.01	7.12	301.15	9.88	0.13
6/18/2024 13:20	11.9	13.59	0.01	7.1	301.84	9.83	0.25
6/18/2024 13:30	12	13.56	0.01	7.11	299.81	9.85	0.17
6/18/2024 13:40	12.05	13.65	0.01	7.09	300.93	9.81	0.2
6/18/2024 13:50	12.13	13.5	0.01	7.12	298.42	9.76	3.49
6/18/2024 14:00	12.2	13.66	0.01	7.06	298.47	9.74	0.16
6/18/2024 14:10	12.27	13.69	0.01	7.1	297.71	9.71	0.16

WLNG US Sonde 2024-06-17 to 2024-06-24

6/18/2024 14:20	12.37	13.69	0.01	7.06	299.59	9.7	0.18
6/18/2024 14:30	12.47	13.72	0.01	7.14	296.63	9.68	0.2
6/18/2024 14:40	12.57	13.77	0.01	7.09	299.12	9.68	0.18
6/18/2024 14:50	12.67	13.79	0.01	7.13	297.06	9.63	0.35
6/18/2024 15:00	12.73	13.82	0.01	7.1	299.67	9.58	0.46
6/18/2024 15:10	12.77	13.64	0.01	7.14	297.63	9.61	0.19
6/18/2024 15:20	12.81	13.82	0.01	7.09	300.48	9.6	0.19
6/18/2024 15:30	12.82	13.82	0.01	7.09	300.54	9.58	0.4
6/18/2024 15:40	12.85	13.79	0.01	7.2	298.8	9.58	0.17
6/18/2024 15:50	12.87	13.88	0.01	7.11	297.89	9.56	0.2
6/18/2024 16:00	12.89	13.77	0.01	7.1	298.43	9.56	0.18
6/18/2024 16:10	12.89	13.84	0.01	7.16	294	9.55	0.36
6/18/2024 16:20	12.89	13.85	0.01	7.07	297.83	9.56	0.37
6/18/2024 16:30	12.88	13.87	0.01	7.1	296.59	9.54	0.4
6/18/2024 16:40	12.88	13.88	0.01	7.07	298.27	9.55	0.44
6/18/2024 16:50	12.87	13.84	0.01	7.12	297.13	9.54	0.17
6/18/2024 17:00	12.86	13.98	0.01	7.1	299.98	9.54	0.68
6/18/2024 17:10	12.85	13.95	0.01	7.11	294.45	9.54	0.33
6/18/2024 17:20	12.83	13.96	0.01	7.04	297.94	9.53	0.23
6/18/2024 17:30	12.81	13.86	0.01	7.04	300.78	9.54	0.72
6/18/2024 17:40	12.8	13.9	0.01	7.07	300.73	9.53	0.24
6/18/2024 17:50	12.77	13.84	0.01	7.06	300.16	9.56	0.19
6/18/2024 18:00	12.74	13.91	0.01	7.05	301.84	9.54	0.18
6/18/2024 18:10	12.71	13.89	0.01	7.03	302.77	9.56	0.22
6/18/2024 18:20	12.67	13.93	0.01	7.04	303.82	9.55	0.23
6/18/2024 18:30	12.64	13.93	0.01	7.04	305.31	9.54	0.22
6/18/2024 18:40	12.61	13.99	0.01	7.02	306.48	9.55	0.19
6/18/2024 18:50	12.58	13.94	0.01	7.02	306.26	9.57	0.21
6/18/2024 19:00	12.55	14	0.01	6.98	306.67	9.58	0.21
6/18/2024 19:10	12.51	13.93	0.01	6.98	308.23	9.58	0.19
6/18/2024 19:20	12.46	13.93	0.01	6.96	306.75	9.59	0.15
6/18/2024 19:30	12.41	13.99	0.01	6.96	309.2	9.6	0.19
6/18/2024 19:40	12.36	14.01	0.01	6.97	307.62	9.61	0.18
6/18/2024 19:50	12.32	13.98	0.01	7.01	306.3	9.63	0.91
6/18/2024 20:00	12.28	14.01	0.01	6.98	306.78	9.63	0.54
6/18/2024 20:10	12.24	13.96	0.01	7.03	305.39	9.64	0.4
6/18/2024 20:20	12.21	14.01	0.01	6.96	308.4	9.63	0.17
6/18/2024 20:30	12.17	13.98	0.01	7.02	306.13	9.66	0.21
6/18/2024 20:40	12.14	13.99	0.01	6.99	305.07	9.65	0.28
6/18/2024 20:50	12.1	13.99	0.01	6.96	309.74	9.66	0.19
6/18/2024 21:00	12.07	14	0.01	6.98	307.63	9.66	0.26
6/18/2024 21:10	12.04	13.97	0.01	6.97	308.66	9.66	5.41
6/18/2024 21:20	12.01	14.01	0.01	6.98	306.46	9.69	0.44
6/18/2024 21:30	11.97	13.99	0.01	7.03	303.88	9.69	0.44
6/18/2024 21:40	11.94	14.04	0.01	6.99	304.55	9.68	0.2
6/18/2024 21:50	11.91	14.02	0.01	6.99	305.25	9.7	0.19
6/18/2024 22:00	11.87	13.98	0.01	6.98	304.74	9.72	0.64

WLNG US Sonde 2024-06-17 to 2024-06-24

6/18/2024 22:10	11.84	13.94	0.01	7	303.42	9.72	0.16
6/18/2024 22:20	11.81	14	0.01	6.96	305.44	9.74	0.36
6/18/2024 22:30	11.78	13.95	0.01	7.05	303.71	9.71	0.14
6/18/2024 22:40	11.75	13.98	0.01	6.99	305.53	9.75	0.26
6/18/2024 22:50	11.72	13.99	0.01	7	305.73	9.76	0.16
6/18/2024 23:00	11.7	14.03	0.01	6.99	304.98	9.74	0.19
6/18/2024 23:10	11.67	13.98	0.01	7.06	301.85	9.77	0.17
6/18/2024 23:20	11.64	13.99	0.01	6.99	304.65	9.76	0.29
6/18/2024 23:30	11.61	14	0.01	6.99	304.54	9.77	0.14
6/18/2024 23:40	11.59	14.05	0.01	6.98	303.55	9.78	0.4
6/18/2024 23:50	11.56	13.78	0.01	7.02	302.71	9.8	0.18
6/19/2024 0:00	11.54	14	0.01	7	303.55	9.79	0.17
6/19/2024 0:10	11.51	14.01	0.01	7.05	303.42	9.8	0.13
6/19/2024 0:20	11.49	13.99	0.01	6.98	305.85	9.82	0.15
6/19/2024 0:30	11.46	13.92	0.01	6.98	305.66	9.79	0.16
6/19/2024 0:40	11.44	14.02	0.01	6.98	304	9.83	2.15
6/19/2024 0:50	11.42	14	0.01	7.07	302.3	9.81	17.35
6/19/2024 1:00	11.4	14.08	0.01	6.98	304.16	9.83	0.15
6/19/2024 1:10	11.37	13.93	0.01	7.03	303.35	9.82	0.13
6/19/2024 1:20	11.35	13.99	0.01	6.98	304.17	9.84	1.53
6/19/2024 1:30	11.33	14.08	0.01	6.99	307.45	9.84	0.59
6/19/2024 1:40	11.3	13.99	0.01	6.98	306.5	9.84	0.58
6/19/2024 1:50	11.28	14	0.01	7.06	304.44	9.86	0.19
6/19/2024 2:00	11.26	13.96	0.01	6.98	305.53	9.86	0.19
6/19/2024 2:10	11.24	13.94	0.01	6.96	305.76	9.85	0.17
6/19/2024 2:20	11.22	13.99	0.01	6.99	304.55	9.87	0.15
6/19/2024 2:30	11.2	13.91	0.01	7.01	302.25	9.88	0.14
6/19/2024 2:40	11.18	14.03	0.01	7	302.22	9.88	132.1
6/19/2024 2:50	11.15	13.9	0.01	6.98	305.81	9.88	0.27
6/19/2024 3:00	11.13	13.99	0.01	6.99	304.65	9.89	0.48
6/19/2024 3:10	11.11	13.85	0.01	6.99	304.04	9.9	0.2
6/19/2024 3:20	11.09	13.99	0.01	7	304.13	9.89	0.19
6/19/2024 3:30	11.06	13.89	0.01	7.01	302.13	9.9	0.17
6/19/2024 3:40	11.04	14.04	0.01	6.99	299.64	9.9	0.23
6/19/2024 3:50	11.02	13.94	0.01	7.03	300.79	9.93	1.76
6/19/2024 4:00	11	14.11	0.01	6.99	301.12	9.92	0.88
6/19/2024 4:10	10.98	13.96	0.01	7.05	299.38	9.93	0.19
6/19/2024 4:20	10.96	14.02	0.01	6.98	302.56	9.92	1.16
6/19/2024 4:30	10.94	13.98	0.01	7.06	299.55	9.92	0.29
6/19/2024 4:40	10.92	13.95	0.01	6.99	302.04	9.96	0.95
6/19/2024 4:50	10.89	13.94	0.01	7.02	301.99	9.95	0.39
6/19/2024 5:00	10.87	13.99	0.01	6.99	302.07	9.97	0.23
6/19/2024 5:10	10.84	13.96	0.01	7.01	303.06	9.97	1.65
6/19/2024 5:20	10.82	14.02	0.01	6.99	302.43	9.98	3.63
6/19/2024 5:30	10.8	13.88	0.01	7.07	300.19	9.97	0.27
6/19/2024 5:40	10.78	14.02	0.01	6.99	303.66	9.98	3.75
6/19/2024 5:50	10.77	13.9	0.01	7.06	302.78	9.98	0.27

WLNG US Sonde 2024-06-17 to 2024-06-24

6/19/2024 6:00	10.76	14	0.01	6.99	302.22	9.99	0.12
6/19/2024 6:10	10.74	13.88	0.01	7.05	303	9.99	0.28
6/19/2024 6:20	10.73	13.99	0.01	7	302.54	9.99	0.11
6/19/2024 6:30	10.72	13.87	0.01	7.05	301.32	10.01	1.81
6/19/2024 6:40	10.71	13.94	0.01	7.03	302.57	10.01	0.15
6/19/2024 6:50	10.71	13.91	0.01	7.04	301.15	10.04	0.1
6/19/2024 7:00	10.71	13.93	0.01	7	302.23	10.01	0.19
6/19/2024 7:10	10.71	13.92	0.01	7.07	299.75	10.02	30.74
6/19/2024 7:20	10.71	13.96	0.01	7.01	301.8	10.02	0.12
6/19/2024 7:30	10.71	13.86	0.01	7.11	300.88	10.02	0.11
6/19/2024 7:40	10.72	13.96	0.01	7.12	302.21	10.02	4.63
6/19/2024 7:50	10.72	13.88	0.01	7.06	302.33	10.03	0.14
6/19/2024 8:00	10.74	13.97	0.01	7	304.08	10.02	0.24
6/19/2024 8:10	10.75	13.92	0.01	7.06	303.93	10.02	0.13
6/19/2024 8:20	10.77	13.96	0.01	7.01	303.96	10.02	0.27
6/19/2024 8:30	10.81	13.91	0.01	7.01	305.62	10.01	1.6
6/19/2024 8:40	10.85	13.93	0.01	7	304.1	10	0.19
6/19/2024 8:50	10.88	13.91	0.01	7.03	303.87	10.01	0.14
6/19/2024 9:00	10.91	13.97	0.01	7.02	304.15	10.02	0.15
6/19/2024 9:10	10.93	13.83	0.01	7.05	304.13	10.01	0.12
6/19/2024 9:20	10.95	13.96	0.01	7.03	303.12	10.01	0.22
6/19/2024 9:30	10.97	13.83	0.01	7.03	303.26	10	0.16
6/19/2024 9:40	10.99	14.02	0.01	7.03	302.76	9.99	0.13
6/19/2024 9:50	11.03	13.96	0.01	7.08	302.56	9.99	0.13
6/19/2024 10:00	11.07	14.01	0.01	7.02	304.19	9.97	0.12
6/19/2024 10:10	11.13	13.95	0.01	7.03	304.4	9.96	0.22
6/19/2024 10:20	11.2	14	0.01	7.04	300.15	9.96	0.14
6/19/2024 10:30	11.28	13.85	0.01	7.12	300.12	9.96	0.15
6/19/2024 10:40	11.37	13.98	0.01	7.07	301.98	9.94	0.13
6/19/2024 10:50	11.45	13.83	0.01	7.15	298.98	9.92	0.14
6/19/2024 11:00	11.52	14.02	0.01	7.06	300.83	9.92	0.15
6/19/2024 11:10	11.6	13.82	0.01	7.17	300.28	9.88	0.17
6/19/2024 11:20	11.69	13.94	0.01	7.08	300.29	9.89	0.16
6/19/2024 11:30	11.78	13.9	0.01	7.15	297.78	9.9	0.18
6/19/2024 11:40	11.86	13.95	0.01	7.1	297.71	9.87	0.15
6/19/2024 11:50	11.94	13.98	0.01	7.12	299.84	9.87	0.17
6/19/2024 12:00	12.03	13.93	0.01	7.12	299.76	9.85	0.73
6/19/2024 12:10	12.1	14	0.01	7.15	299.49	9.81	0.16
6/19/2024 12:20	12.18	13.93	0.01	7.14	297.41	9.79	0.24
6/19/2024 12:30	12.25	14.01	0.01	7.12	298.17	9.78	0.17
6/19/2024 12:40	12.35	13.95	0.01	7.1	296.84	9.74	0.92
6/19/2024 12:50	12.42	13.95	0.01	7.14	296.16	9.73	1.01
6/19/2024 13:00	12.49	13.99	0.01	7.09	295.34	9.72	0.14
6/19/2024 13:10	12.57	13.88	0.01	7.09	294.42	9.67	0.44
6/19/2024 13:20	12.68	13.95	0.01	7.08	294.01	9.66	0.66
6/19/2024 13:30	12.74	13.92	0.01	7.16	292.68	9.62	0.94
6/19/2024 13:40	12.8	14.02	0.01	7.09	293.82	9.59	0.99

WLNG US Sonde 2024-06-17 to 2024-06-24

6/19/2024 13:50	12.87	13.89	0.01	7.14	290.62	9.59	0.26
6/19/2024 14:00	12.95	13.94	0.01	7.08	292.93	9.56	0.13
6/19/2024 14:10	12.98	14.01	0.01	7.09	293.98	9.54	0.22
6/19/2024 14:20	13.07	13.98	0.01	7.09	293.94	9.52	0.21
6/19/2024 14:30	13.15	14.02	0.01	7.11	293.7	9.5	0.9
6/19/2024 14:40	13.26	14.04	0.01	7.08	293.68	9.47	0.77
6/19/2024 14:50	13.36	13.98	0.01	7.12	294.42	9.46	0.25
6/19/2024 15:00	13.45	14.05	0.01	7.12	295.12	9.45	0.33
6/19/2024 15:10	13.5	14.1	0.01	7.14	296.94	9.42	0.25
6/19/2024 15:20	13.57	14.11	0.01	7.08	297.2	9.41	0.28
6/19/2024 15:30	13.6	13.95	0.01	7.21	291.38	9.42	0.59
6/19/2024 15:40	13.63	14.15	0.01	7.08	294.39	9.4	0.25
6/19/2024 15:50	13.65	14.12	0.01	7.08	297.06	9.39	0.27
6/19/2024 16:00	13.67	14.09	0.01	7.06	296.21	9.38	0.29
6/19/2024 16:10	13.68	14.05	0.01	7.12	294.38	9.37	1.4
6/19/2024 16:20	13.69	14.15	0.01	7.05	297.33	9.36	0.25
6/19/2024 16:30	13.67	14.04	0.01	7.09	296.33	9.36	2.8
6/19/2024 16:40	13.66	14.17	0.01	7.05	297.67	9.35	0.28
6/19/2024 16:50	13.66	14.07	0.01	7.16	297.1	9.36	0.48
6/19/2024 17:00	13.66	14.23	0.01	7.03	299.06	9.35	1.6
6/19/2024 17:10	13.64	14.18	0.01	7.15	296.99	9.35	0.34
6/19/2024 17:20	13.62	14.27	0.01	7.03	298.31	9.33	0.31
6/19/2024 17:30	13.6	14.22	0.01	7.08	298.21	9.35	0.24
6/19/2024 17:40	13.58	14.21	0.01	7	300.66	9.36	0.3
6/19/2024 17:50	13.55	14.11	0.01	7.04	299.23	9.36	0.26
6/19/2024 18:00	13.51	14.34	0.01	6.99	300.56	9.35	0.23
6/19/2024 18:10	13.47	14.16	0.01	7.1	300.93	9.36	2.5
6/19/2024 18:20	13.44	14.25	0.01	6.98	301.83	9.38	0.25
6/19/2024 18:30	13.39	13.99	0.01	7.07	296.33	9.36	0.24
6/19/2024 18:40	13.36	14.18	0.01	6.98	300.9	9.41	0.26
6/19/2024 18:50	13.34	14.28	0.01	6.96	302.08	9.39	0.25
6/19/2024 19:00	13.31	14.38	0.01	6.97	301.32	9.38	0.23
6/19/2024 19:10	13.28	14.14	0.01	7.01	300.75	9.39	0.24
6/19/2024 19:20	13.24	14.38	0.01	6.96	300.38	9.4	0.23
6/19/2024 19:30	13.2	14.33	0.01	7.03	301.12	9.41	0.5
6/19/2024 19:40	13.16	14.38	0.01	6.98	299.69	9.41	25.04
6/19/2024 19:50	13.12	14.26	0.01	7.02	300.14	9.42	0.72
6/19/2024 20:00	13.09	14.42	0.01	6.97	300.77	9.44	0.26
6/19/2024 20:10	13.05	14.29	0.01	6.98	303.02	9.43	0.97
6/19/2024 20:20	13.02	14.38	0.01	6.98	301.5	9.44	0.34
6/19/2024 20:30	12.98	14.31	0.01	6.97	302.93	9.44	6.18
6/19/2024 20:40	12.94	14.33	0.01	6.96	302.61	9.45	0.59
6/19/2024 20:50	12.91	14.31	0.01	6.98	304.12	9.47	0.43
6/19/2024 21:00	12.88	14.38	0.01	6.97	303.49	9.48	0.75
6/19/2024 21:10	12.85	14.33	0.01	7.03	300.66	9.46	0.22
6/19/2024 21:20	12.82	14.32	0.01	6.97	301.31	9.49	0.3
6/19/2024 21:30	12.78	14.32	0.01	6.98	302.84	9.49	1.53

WLNG US Sonde 2024-06-17 to 2024-06-24

6/19/2024 21:40	12.75	14.35	0.01	6.98	300.23	9.49	0.29
6/19/2024 21:50	12.72	14.38	0.01	7.08	297.55	9.52	0.2
6/19/2024 22:00	12.69	14.31	0.01	6.97	301.46	9.5	0.22
6/19/2024 22:10	12.65	14.28	0.01	7	302.58	9.52	0.25
6/19/2024 22:20	12.62	14.36	0.01	6.97	302.42	9.54	0.19
6/19/2024 22:30	12.58	14.38	0.01	7.03	301.05	9.53	0.22
6/19/2024 22:40	12.55	14.34	0.01	6.97	303.62	9.54	0.3
6/19/2024 22:50	12.52	14.34	0.01	7.03	300.88	9.55	0.22
6/19/2024 23:00	12.49	14.37	0.01	6.96	303.4	9.55	0.29
6/19/2024 23:10	12.46	14.29	0.01	6.98	303.35	9.55	0.19
6/19/2024 23:20	12.44	14.36	0.01	6.96	303.78	9.58	1.76
6/19/2024 23:30	12.41	14.33	0.01	6.97	304.97	9.58	0.21
6/19/2024 23:40	12.38	14.39	0.01	6.97	303.6	9.58	0.21
6/19/2024 23:50	12.35	14.3	0.01	7	303.16	9.6	0.19
6/20/2024 0:00	12.33	14.38	0.01	6.95	304.09	9.58	0.23
6/20/2024 0:10	12.3	14.3	0.01	6.99	301.94	9.61	0.93
6/20/2024 0:20	12.27	14.37	0.01	6.98	302.25	9.6	2.93
6/20/2024 0:30	12.24	14.25	0.01	6.97	301.91	9.61	0.22
6/20/2024 0:40	12.22	14.39	0.01	6.95	303.63	9.61	0.22
6/20/2024 0:50	12.19	14.26	0.01	7.03	300.19	9.64	1.25
6/20/2024 1:00	12.16	14.32	0.01	6.96	303.9	9.63	0.24
6/20/2024 1:10	12.14	14.31	0.01	7.1	299.86	9.65	0.17
6/20/2024 1:20	12.11	14.34	0.01	6.94	304.37	9.63	0.21
6/20/2024 1:30	12.08	14.26	0.01	6.96	305.21	9.65	0.17
6/20/2024 1:40	12.05	14.31	0.01	6.97	303.45	9.67	0.29
6/20/2024 1:50	12.02	14.31	0.01	6.99	303.81	9.67	0.19
6/20/2024 2:00	12	14.39	0.01	6.97	303.66	9.68	0.2
6/20/2024 2:00	12	14.39	0.01	6.97	303.66	9.68	0.2
6/20/2024 2:10	11.97	14.25	0.01	7.03	302.53	9.69	0.28
6/20/2024 2:20	11.95	14.32	0.01	7	302.94	9.69	0.33
6/20/2024 2:30	11.93	14.18	0.01	7.07	302.18	9.69	0.35
6/20/2024 2:40	11.91	14.33	0.01	6.97	303.73	9.7	0.2
6/20/2024 2:50	11.88	14.18	0.01	7.02	302.75	9.7	0.39
6/20/2024 3:00	11.85	14.26	0.01	6.97	303.05	9.71	0.2
6/20/2024 3:10	11.83	14.19	0.01	6.96	303.48	9.69	0.19
6/20/2024 3:20	11.81	14.24	0.01	6.97	304.25	9.71	0.18
6/20/2024 3:30	11.78	14.24	0.01	7.04	301.89	9.72	0.18
6/20/2024 3:40	11.76	14.29	0.01	6.96	303.83	9.73	0.15
6/20/2024 3:50	11.73	14.2	0.01	7.01	302.73	9.74	0.17
6/20/2024 4:00	11.71	14.2	0.01	6.98	303.72	9.75	0.18
6/20/2024 4:10	11.69	14.23	0.01	6.96	305.8	9.75	0.19
6/20/2024 4:20	11.67	14.23	0.01	6.98	305.01	9.74	0.21
6/20/2024 4:30	11.65	14.23	0.01	7.05	303.09	9.77	0.17
6/20/2024 4:40	11.64	14.27	0.01	6.96	305.14	9.76	0.2
6/20/2024 4:50	11.62	14	0.01	7.04	304.53	9.8	0.2
6/20/2024 5:00	11.6	14.21	0.01	6.96	305.17	9.78	0.58
6/20/2024 5:10	11.58	14.02	0.01	6.98	304.89	9.77	0.17

WLNG US Sonde 2024-06-17 to 2024-06-24

6/20/2024 5:20	11.56	14.27	0.01	6.98	306.12	9.78	0.34
6/20/2024 5:30	11.54	14.18	0.01	7.01	304.5	9.79	0.43
6/20/2024 5:40	11.53	14.22	0.01	6.98	303.84	9.8	0.16
6/20/2024 5:50	11.51	13.96	0.01	7.1	299.87	9.81	0.17
6/20/2024 6:00	11.5	14.19	0.01	6.99	301.35	9.81	3.87
6/20/2024 6:10	11.48	14.14	0.01	7.06	301.15	9.81	0.14
6/20/2024 6:20	11.47	14.21	0.01	7.02	301.46	9.85	0.17
6/20/2024 6:30	11.46	14.15	0.01	7.06	295.81	9.83	0.15
6/20/2024 6:40	11.46	14.19	0.01	7.03	299.14	9.83	0.14
6/20/2024 6:50	11.45	13.93	0.01	7.06	298.73	9.82	0.2
6/20/2024 7:00	11.45	14.22	0.01	7	299.96	9.83	0.45
6/20/2024 7:10	11.44	14.09	0.01	7.07	297.15	9.84	0.15
6/20/2024 7:20	11.44	14.2	0.01	7	301.62	9.84	0.24
6/20/2024 7:30	11.44	14.11	0.01	7.12	297.45	9.84	0.15
6/20/2024 7:40	11.45	14.16	0.01	6.99	301.87	9.85	0.15
6/20/2024 7:50	11.45	14.17	0.01	7.13	299.13	9.85	0.15
6/20/2024 8:00	11.46	14.18	0.01	7.05	299.68	9.83	2.12
6/20/2024 8:10	11.48	14.18	0.01	7.06	302.19	9.83	0.15
6/20/2024 8:20	11.5	14.21	0.01	6.98	303.58	9.84	0.15
6/20/2024 8:30	11.53	14.07	0.01	7.1	301.82	9.84	0.16
6/20/2024 8:40	11.58	14.16	0.01	6.99	304.47	9.84	0.14
6/20/2024 8:50	11.61	14.09	0.01	7.03	302.12	9.84	0.17
6/20/2024 9:00	11.65	14.16	0.01	7	300.74	9.81	0.18
6/20/2024 9:10	11.67	14.02	0.01	7.06	298.03	9.83	0.49
6/20/2024 9:20	11.7	14.17	0.01	7	300.18	9.83	0.18
6/20/2024 9:30	11.71	14.11	0.01	7.1	296.46	9.82	0.14
6/20/2024 9:40	11.73	14.27	0.01	7.03	300.18	9.82	0.16
6/20/2024 9:50	11.77	14.23	0.01	7.02	300.69	9.81	0.16
6/20/2024 10:00	11.82	14.21	0.01	7	300.89	9.8	0.44
6/20/2024 10:10	11.87	14.25	0.01	7.02	302.28	9.79	0.16
6/20/2024 10:20	11.95	14.23	0.01	7.02	301.33	9.79	0.25
6/20/2024 10:30	12.03	14.18	0.01	7.12	300.58	9.76	0.18
6/20/2024 10:40	12.13	14.18	0.01	7.07	299.99	9.75	0.18
6/20/2024 10:50	12.23	14.08	0.01	7.09	297.72	9.76	0.18
6/20/2024 11:00	12.3	14.05	0.01	7.13	297.33	9.74	0.21
6/20/2024 11:10	12.39	13.61	0.01	7.16	296.54	9.73	0.19
6/20/2024 11:20	12.48	13.77	0.01	7.11	294.6	9.72	2.19
6/20/2024 11:20	12.48	13.77	0.01	7.11	294.6	9.72	2.19
6/20/2024 11:30	12.55	13.69	0.01	7.26	294.09	9.71	3.73
6/20/2024 11:40	12.64	13.65	0.01	7.24	297.03	9.71	0.24
6/20/2024 11:50	12.71	13.7	0.01	7.16	295.42	9.7	1.6
6/20/2024 12:00	12.79	13.64	0.01	7.09	297.08	9.68	0.24
6/20/2024 12:10	12.84	13.6	0.01	7.15	297.66	9.65	0.23
6/20/2024 12:20	12.93	13.55	0.01	7.12	297.97	9.64	0.23
6/20/2024 12:30	13	13.32	0.01	7.12	292.29	9.61	18.8
6/20/2024 12:40	13.07	13.43	0.01	7.08	295.21	9.6	0.24
6/20/2024 12:50	13.13	13.22	0.01	7.16	290.36	9.58	0.43

WLNG US Sonde 2024-06-17 to 2024-06-24

6/20/2024 13:00	13.19	13.38	0.01	7.18	292.91	9.56	0.23
6/20/2024 13:10	13.23	13.4	0.01	7.25	288.88	9.55	0.63
6/20/2024 13:20	13.33	13.46	0.01	7.15	288.22	9.5	0.31
6/20/2024 13:30	13.37	13.47	0.01	7.21	290.39	9.49	0.25
6/20/2024 13:40	13.45	13.57	0.01	7.14	291.75	9.46	0.22
6/20/2024 13:50	13.5	13.55	0.01	7.23	292.6	9.43	0.25
6/20/2024 14:00	13.57	13.71	0.01	7.1	293.85	9.43	0.26
6/20/2024 14:10	13.61	13.68	0.01	7.24	292.78	9.4	0.23
6/20/2024 14:20	13.68	13.77	0.01	7.07	293.39	9.39	0.39
6/20/2024 14:30	13.76	13.65	0.01	7.17	291.72	9.36	1.06
6/20/2024 14:40	13.87	13.84	0.01	7.08	295.04	9.34	0.5
6/20/2024 14:50	13.97	13.74	0.01	7.15	293.23	9.33	0.55
6/20/2024 15:00	14.06	14.02	0.01	7.07	294.97	9.3	0.64
6/20/2024 15:10	14.12	13.96	0.01	7.17	290.98	9.29	0.61
6/20/2024 15:20	14.19	14.09	0.01	7.08	293.06	9.29	0.35
6/20/2024 15:30	14.21	14.14	0.01	7.15	291.27	9.29	0.69
6/20/2024 15:40	14.25	14.22	0.01	7.08	292.85	9.26	0.45
6/20/2024 15:50	14.27	14.12	0.01	7.13	291.37	9.24	0.34
6/20/2024 16:00	14.29	14.25	0.01	7.06	291.51	9.24	0.48
6/20/2024 16:10	14.3	14.14	0.01	7.08	288.94	9.23	0.29
6/20/2024 16:20	14.29	14.23	0.01	7.04	291.62	9.22	0.32
6/20/2024 16:30	14.27	14.21	0.01	7.07	292.38	9.24	0.53
6/20/2024 16:40	14.26	14.29	0.01	7.01	295.56	9.2	0.72
6/20/2024 16:50	14.25	14.15	0.01	7.06	293.87	9.21	0.78
6/20/2024 17:00	14.24	14.29	0.01	7.01	295.95	9.22	0.69
6/20/2024 17:10	14.21	14.15	0.01	7	298.73	9.22	0.67
6/20/2024 17:20	14.2	14.39	0.01	6.99	299.65	9.2	0.64
6/20/2024 17:30	14.16	14.19	0.01	7.06	296.68	9.22	0.41
6/20/2024 17:40	14.15	14.39	0.01	6.97	301.68	9.23	0.4
6/20/2024 17:50	14.12	14.36	0.01	7	301.81	9.24	0.31
6/20/2024 18:00	14.09	14.39	0.01	6.98	302.62	9.23	0.29
6/20/2024 18:10	14.06	14.36	0.01	7.03	295.21	9.23	0.34
6/20/2024 18:20	14.04	14.62	0.01	6.97	297.83	9.23	0.29
6/20/2024 18:30	14	14.38	0.01	7.01	296.27	9.23	0.27
6/20/2024 18:40	13.97	14.42	0.01	6.96	298.91	9.24	0.28
6/20/2024 18:50	13.95	14.42	0.01	7.01	297.32	9.24	0.27
6/20/2024 19:00	13.93	14.44	0.01	6.95	301.3	9.25	0.33
6/20/2024 19:10	13.9	14.41	0.01	7.06	295.97	9.26	0.29
6/20/2024 19:20	13.88	14.46	0.01	6.97	301.92	9.24	0.26
6/20/2024 19:30	13.84	14.23	0.01	7.06	296.88	9.27	0.3
6/20/2024 19:40	13.8	14.5	0.01	6.97	301	9.26	0.4
6/20/2024 19:50	13.77	14.45	0.01	7.01	300.55	9.29	0.27
6/20/2024 20:00	13.75	14.53	0.01	6.97	301.66	9.26	0.25
6/20/2024 20:10	13.72	14.54	0.01	7.06	298.78	9.29	0.37
6/20/2024 20:20	13.69	14.6	0.01	6.98	301.64	9.28	0.32
6/20/2024 20:30	13.66	14.53	0.01	7.03	301.05	9.31	0.23
6/20/2024 20:40	13.63	14.51	0.01	6.96	303.02	9.29	0.26

WLNG US Sonde 2024-06-17 to 2024-06-24

6/20/2024 20:50	13.59	14.3	0.01	7.06	298.85	9.3	0.41
6/20/2024 21:00	13.56	14.47	0.01	6.97	301.81	9.32	0.25
6/20/2024 21:10	13.53	14.53	0.01	7	302.34	9.31	0.26
6/20/2024 21:20	13.49	14.53	0.01	6.97	302.75	9.31	0.26
6/20/2024 21:30	13.46	14.43	0.01	7.01	301.21	9.35	0.27
6/20/2024 21:40	13.43	14.53	0.01	6.97	302.78	9.32	0.26
6/20/2024 21:50	13.39	14.46	0.01	7.03	300.29	9.33	0.26
6/20/2024 22:00	13.36	14.5	0.01	6.96	303.88	9.35	0.25
6/20/2024 22:10	13.32	14.44	0.01	6.99	304.4	9.36	0.27
6/20/2024 22:20	13.29	14.57	0.01	6.95	305.33	9.36	0.34
6/20/2024 22:30	13.26	14.57	0.01	6.97	303.56	9.38	0.25
6/20/2024 22:40	13.23	14.61	0.01	6.95	304.65	9.39	0.27
6/20/2024 22:50	13.2	14.58	0.01	7.05	302.01	9.39	0.31
6/20/2024 23:00	13.17	14.53	0.01	6.98	304.42	9.4	0.41
6/20/2024 23:10	13.14	14.49	0.01	7.01	303.98	9.41	0.24
6/20/2024 23:20	13.11	14.57	0.01	6.95	306.03	9.41	0.39
6/20/2024 23:30	13.08	14.32	0.01	6.97	304.91	9.41	0.23
6/20/2024 23:40	13.05	14.51	0.01	6.94	308.31	9.44	1.66
6/20/2024 23:50	13.01	14.55	0.01	6.98	304.69	9.42	0.25
6/21/2024 0:00	12.98	14.66	0.01	6.93	307.37	9.43	0.22
6/21/2024 0:10	12.95	14.3	0.01	6.96	302.4	9.45	0.25
6/21/2024 0:20	12.93	14.53	0.01	6.95	306.14	9.43	0.24
6/21/2024 0:30	12.9	14.55	0.01	6.99	305.02	9.47	0.23
6/21/2024 0:40	12.87	14.55	0.01	6.95	305	9.47	0.23
6/21/2024 0:50	12.84	14.33	0.01	7.02	302.95	9.48	0.23
6/21/2024 1:00	12.81	14.56	0.01	7.04	305.61	9.48	0.25
6/21/2024 1:10	12.78	14.32	0.01	7.03	305.73	9.47	1
6/21/2024 1:20	12.76	14.59	0.01	6.94	305.84	9.48	0.22
6/21/2024 1:30	12.73	14.5	0.01	6.99	303.47	9.49	0.24
6/21/2024 1:40	12.7	14.46	0.01	6.95	304.13	9.5	0.2
6/21/2024 1:50	12.67	14.41	0.01	7.02	300.34	9.49	0.22
6/21/2024 2:00	12.64	14.59	0.01	6.95	304.11	9.51	0.22
6/21/2024 2:10	12.61	14.49	0.01	7.06	300.34	9.53	0.21
6/21/2024 2:20	12.58	14.57	0.01	6.94	305.44	9.52	0.2
6/21/2024 2:30	12.55	14.53	0.01	6.98	304.36	9.54	0.24
6/21/2024 2:40	12.53	14.51	0.01	6.94	303.9	9.54	0.24
6/21/2024 2:50	12.5	14.52	0.01	7	302.08	9.53	0.2
6/21/2024 3:00	12.48	14.46	0.01	6.95	303.1	9.54	0.2
6/21/2024 3:10	12.46	14.47	0.01	6.96	305.18	9.56	0.22
6/21/2024 3:20	12.43	14.57	0.01	6.94	304.9	9.56	0.24
6/21/2024 3:30	12.41	14.52	0.01	7.01	302.16	9.58	2.37
6/21/2024 3:40	12.39	14.49	0.01	6.96	303.07	9.58	0.26
6/21/2024 3:50	12.36	14.3	0.01	6.97	303.59	9.58	0.44
6/21/2024 4:00	12.34	14.47	0.01	6.98	301.94	9.58	0.21
6/21/2024 4:10	12.31	14.38	0.01	6.97	302.96	9.59	0.2
6/21/2024 4:20	12.3	14.52	0.01	6.95	304.3	9.58	0.22
6/21/2024 4:30	12.27	14.48	0.01	7	302.41	9.6	0.2

WLNG US Sonde 2024-06-17 to 2024-06-24

6/21/2024 4:40	12.26	14.53	0.01	6.95	305.07	9.6	0.22
6/21/2024 4:50	12.23	14.38	0.01	7.04	303.41	9.6	0.2
6/21/2024 5:00	12.21	14.5	0.01	6.96	306.79	9.61	0.5
6/21/2024 5:10	12.18	14.48	0.01	6.96	307.93	9.61	0.18
6/21/2024 5:20	12.16	14.49	0.01	6.97	306.28	9.65	0.24
6/21/2024 5:30	12.13	14.48	0.01	7.01	306.24	9.63	0.21
6/21/2024 5:40	12.12	14.51	0.01	7	305.75	9.65	0.2
6/21/2024 5:50	12.08	14.44	0.01	6.99	307.07	9.65	0.49
6/21/2024 6:00	12.07	14.43	0.01	6.96	303.88	9.67	0.24
6/21/2024 6:10	12.05	14.4	0.01	7.07	299.35	9.65	0.16
6/21/2024 6:20	12.04	14.43	0.01	6.98	301.99	9.66	0.78
6/21/2024 6:30	12.03	14.39	0.01	7.03	301.42	9.67	0.19
6/21/2024 6:40	12.01	14.45	0.01	6.97	303.46	9.67	0.19
6/21/2024 6:50	12	14.39	0.01	6.99	301.78	9.68	0.18
6/21/2024 7:00	11.99	14.37	0.01	6.99	302.47	9.67	0.22
6/21/2024 7:10	11.98	14.33	0.01	7	302.9	9.7	0.18
6/21/2024 7:20	11.98	14.4	0.01	6.97	304.22	9.69	0.18
6/21/2024 7:30	11.98	14.18	0.01	7.02	302.84	9.7	0.2
6/21/2024 7:40	11.98	14.35	0.01	6.98	302.89	9.68	0.19
6/21/2024 7:50	11.98	14.28	0.01	7.03	302.89	9.7	0.25
6/21/2024 8:00	11.98	14.38	0.01	6.96	305.97	9.69	0.18
6/21/2024 8:10	11.99	14.28	0.01	7	306.65	9.69	0.18
6/21/2024 8:20	12	14.37	0.01	7.08	305.67	9.69	0.18
6/21/2024 8:30	12.03	14.32	0.01	7.12	304.78	9.71	0.25
6/21/2024 8:40	12.08	14.24	0.01	7.1	305.77	9.69	0.18
6/21/2024 8:50	12.11	14.15	0.01	7.15	302.26	9.69	0.19
6/21/2024 9:00	12.14	14.04	0.01	7.06	304.03	9.69	0.18
6/21/2024 9:10	12.15	14.02	0.01	7.17	305.11	9.7	0.22
6/21/2024 9:20	12.17	14.01	0.01	7.14	306.09	9.69	0.3
6/21/2024 9:30	12.19	14.03	0.01	7.21	303.74	9.69	0.18
6/21/2024 9:40	12.2	14.06	0.01	7.08	306.35	9.68	0.2
6/21/2024 9:50	12.23	14	0.01	7.12	304.16	9.67	0.22
6/21/2024 10:00	12.26	14.01	0.01	7.06	306.43	9.68	0.19
6/21/2024 10:10	12.32	14.05	0.01	7.05	304.52	9.66	0.26
6/21/2024 10:20	12.38	14.11	0.01	7.03	306.04	9.65	0.2
6/21/2024 10:30	12.46	14.03	0.01	7.03	306.01	9.64	0.21
6/21/2024 10:40	12.54	14.09	0.01	7.03	303.49	9.63	0.25
6/21/2024 10:50	12.63	13.91	0.01	7.09	293.22	9.62	0.24
6/21/2024 11:00	12.69	14.06	0.01	7.08	296.42	9.63	0.24
6/21/2024 11:10	12.76	14.09	0.01	7.08	298.74	9.63	0.25
6/21/2024 11:20	12.84	14.12	0.01	7.08	298.52	9.61	0.2
6/21/2024 11:30	12.93	14.04	0.01	7.15	298.36	9.62	0.32
6/21/2024 11:40	13.02	14.22	0.01	7.08	299.41	9.61	0.26
6/21/2024 11:50	13.09	14.16	0.01	7.12	296.71	9.6	0.29
6/21/2024 12:00	13.14	14.13	0.01	7.08	298.23	9.56	0.44
6/21/2024 12:10	13.2	14.16	0.01	7.13	295.37	9.56	0.55
6/21/2024 12:20	13.28	14.19	0.01	7.09	297.81	9.53	0.66

WLNG US Sonde 2024-06-17 to 2024-06-24

6/21/2024 12:30	13.35	14.18	0.01	7.1	298.24	9.52	0.47
6/21/2024 12:40	13.42	14.15	0.01	7.08	297.69	9.49	0.38
6/21/2024 12:50	13.5	14.15	0.01	7.12	298.51	9.46	0.68
6/21/2024 13:00	13.56	14.24	0.01	7.07	299.25	9.45	0.57
6/21/2024 13:10	13.63	14.07	0.01	7.14	297.49	9.41	0.35
6/21/2024 13:20	13.72	14.18	0.01	7.07	298.47	9.41	0.93
6/21/2024 13:30	13.79	13.92	0.01	7.16	297.09	9.39	0.26
6/21/2024 13:40	13.84	14.23	0.01	7.24	298.98	9.36	0.25
6/21/2024 13:50	13.89	14.02	0.01	7.1	298.45	9.35	0.28
6/21/2024 14:00	13.97	14.21	0.01	7.07	298.41	9.32	0.26
6/21/2024 14:10	14	14.17	0.01	7.09	297.04	9.32	0.26
6/21/2024 14:20	14.07	14.2	0.01	7.09	297.99	9.3	0.26
6/21/2024 14:30	14.14	14.18	0.01	7.09	296.93	9.27	0.29
6/21/2024 14:40	14.21	14.23	0.01	7.2	298.45	9.28	0.27
6/21/2024 14:50	14.3	14.21	0.01	7.1	294.46	9.25	0.24
6/21/2024 15:00	14.38	14.32	0.01	7.06	297.03	9.22	0.29
6/21/2024 15:10	14.43	14.21	0.01	7.12	296.09	9.22	0.27
6/21/2024 15:20	14.47	14.27	0.01	7.09	297.91	9.23	0.31
6/21/2024 15:30	14.51	14.18	0.01	7.12	295.84	9.21	0.29
6/21/2024 15:40	14.54	14.22	0.01	7.16	298.96	9.2	0.33
6/21/2024 15:50	14.55	14.25	0.01	7.16	294.8	9.18	0.34
6/21/2024 16:00	14.58	14.26	0.01	7.06	298.65	9.19	0.32
6/21/2024 16:10	14.58	14.14	0.01	7.15	296.62	9.18	0.33
6/21/2024 16:20	14.57	14.34	0.01	7.06	297.92	9.18	0.3
6/21/2024 16:30	14.57	14.28	0.01	7.09	297.24	9.19	0.3
6/21/2024 16:40	14.58	14.4	0.01	7.05	298.31	9.15	0.31
6/21/2024 16:50	14.57	14.3	0.01	7.11	298.04	9.14	0.34
6/21/2024 17:00	14.57	14.39	0.01	7.04	300.43	9.15	0.3
6/21/2024 17:10	14.57	14.31	0.01	7.07	298.56	9.13	0.3
6/21/2024 17:20	14.55	14.51	0.01	7.04	300.82	9.14	0.48
6/21/2024 17:30	14.53	14.45	0.01	7.09	298.64	9.11	0.33
6/21/2024 17:40	14.53	14.48	0.01	7.03	302.76	9.12	0.36
6/21/2024 17:50	14.51	14.56	0.01	7.06	298.39	9.13	0.3
6/21/2024 18:00	14.49	14.56	0.01	6.99	302.27	9.1	0.29
6/21/2024 18:10	14.46	14.47	0.01	7.06	298.79	9.13	0.29
6/21/2024 18:20	14.44	14.57	0.01	7	300.01	9.12	0.37
6/21/2024 18:30	14.41	14.42	0.01	7.05	298.84	9.15	0.25
6/21/2024 18:40	14.38	14.55	0.01	6.98	302.25	9.13	0.29
6/21/2024 18:50	14.36	14.39	0.01	7.03	301.9	9.14	0.29
6/21/2024 19:00	14.35	14.57	0.01	6.98	303.53	9.15	0.36
6/21/2024 19:10	14.32	14.59	0.01	7.03	301.95	9.15	0.28
6/21/2024 19:20	14.29	14.63	0.01	6.96	305.19	9.15	0.29
6/21/2024 19:30	14.26	14.55	0.01	7	304.03	9.15	0.31
6/21/2024 19:40	14.23	14.64	0.01	6.96	304.18	9.16	0.3
6/21/2024 19:50	14.2	14.5	0.01	7.01	303.43	9.16	0.3
6/21/2024 20:00	14.17	14.69	0.01	6.96	304.75	9.17	0.28
6/21/2024 20:10	14.15	14.67	0.01	7	303.39	9.18	0.27

WLNG US Sonde 2024-06-17 to 2024-06-24

6/21/2024 20:20	14.13	14.73	0.01	6.97	304.95	9.17	0.31
6/21/2024 20:30	14.1	14.73	0.01	6.98	303.6	9.17	0.3
6/21/2024 20:40	14.08	14.8	0.01	6.95	305.34	9.19	0.27
6/21/2024 20:50	14.05	14.76	0.01	6.99	302.27	9.18	0.28
6/21/2024 21:00	14.02	14.77	0.01	6.95	303.77	9.18	0.27
6/21/2024 21:10	13.99	14.79	0.01	6.98	304.65	9.17	1.76
6/21/2024 21:20	13.96	14.76	0.01	6.95	303.7	9.19	0.61
6/21/2024 21:30	13.92	14.74	0.01	6.99	303.38	9.21	0.27
6/21/2024 21:40	13.9	14.86	0.01	6.95	305.88	9.19	0.29
6/21/2024 21:50	13.87	14.75	0.01	7.01	302.54	9.21	0.27
6/21/2024 22:00	13.84	14.86	0.01	6.95	306.63	9.2	0.23
6/21/2024 22:10	13.81	14.81	0.01	7.03	304.06	9.21	0.3
6/21/2024 22:20	13.79	14.86	0.01	6.96	306.34	9.21	0.34
6/21/2024 22:30	13.76	14.77	0.01	7.05	303.77	9.22	0.27
6/21/2024 22:40	13.73	14.81	0.01	6.96	306.82	9.24	0.26
6/21/2024 22:50	13.7	14.76	0.01	7.03	302	9.22	0.53
6/21/2024 23:00	13.68	14.78	0.01	6.97	304.63	9.25	0.28
6/21/2024 23:10	13.64	14.79	0.01	6.97	304.57	9.27	0.28
6/21/2024 23:20	13.62	14.78	0.01	6.94	304.92	9.25	0.29
6/21/2024 23:30	13.59	14.46	0.01	6.96	306.18	9.26	0.23
6/21/2024 23:40	13.57	14.75	0.01	6.95	303.36	9.25	0.24
6/21/2024 23:50	13.54	14.73	0.01	6.99	302.22	9.27	0.35
6/22/2024 0:00	13.52	14.75	0.01	6.94	303.29	9.28	0.25
6/22/2024 0:10	13.5	14.62	0.01	7.03	301.28	9.27	0.32
6/22/2024 0:20	13.48	14.7	0.01	6.95	305.59	9.3	0.24
6/22/2024 0:30	13.45	14.72	0.01	6.97	304.14	9.31	0.23
6/22/2024 0:40	13.43	14.8	0.01	6.94	303.35	9.29	0.23
6/22/2024 0:50	13.41	14.78	0.01	7.04	300.73	9.29	0.23
6/22/2024 1:00	13.39	14.78	0.01	6.95	305.81	9.31	0.25
6/22/2024 1:10	13.37	14.64	0.01	6.99	302.82	9.31	0.25
6/22/2024 1:20	13.35	14.7	0.01	6.94	303.75	9.32	2.07
6/22/2024 1:30	13.33	14.59	0.01	6.96	307.37	9.33	0.25
6/22/2024 1:40	13.31	14.75	0.01	6.94	304.42	9.32	0.25
6/22/2024 1:50	13.3	14.49	0.01	6.99	306.47	9.32	0.26
6/22/2024 2:00	13.28	14.71	0.01	6.94	307.9	9.3	0.23
6/22/2024 2:10	13.27	14.46	0.01	6.95	309.26	9.32	0.3
6/22/2024 2:20	13.26	14.77	0.01	6.94	307.85	9.32	0.25
6/22/2024 2:30	13.25	14.76	0.01	7.02	302.85	9.33	0.27
6/22/2024 2:40	13.23	14.76	0.01	6.95	305.66	9.33	0.28
6/22/2024 2:50	13.21	14.76	0.01	7.12	302.63	9.34	0.22
6/22/2024 3:00	13.2	14.82	0.01	6.95	306.83	9.33	0.25
6/22/2024 3:10	13.18	14.69	0.01	7.07	304.15	9.38	0.24
6/22/2024 3:20	13.17	14.67	0.01	6.96	307.62	9.34	0.26
6/22/2024 3:30	13.16	14.59	0.01	7.08	303.08	9.35	0.22
6/22/2024 3:40	13.14	14.77	0.01	6.94	305.85	9.34	0.26
6/22/2024 3:50	13.13	14.54	0.01	7.06	306.74	9.36	0.23
6/22/2024 4:00	13.12	14.79	0.01	6.93	307.99	9.34	0.29

WLNG US Sonde 2024-06-17 to 2024-06-24

6/22/2024 4:10	13.11	14.69	0.01	7.12	307.77	9.36	0.28
6/22/2024 4:20	13.1	14.89	0.01	6.93	307.63	9.33	0.25
6/22/2024 4:30	13.09	14.9	0.01	7.15	308.81	9.38	0.25
6/22/2024 4:40	13.08	14.89	0.01	6.93	308.75	9.36	0.31
6/22/2024 4:50	13.07	14.63	0.01	7.14	306.64	9.36	2.18
6/22/2024 5:00	13.07	14.87	0.01	6.91	308.95	9.34	0.29
6/22/2024 5:10	13.06	14.71	0.01	7.02	308.2	9.37	0.26
6/22/2024 5:10	13.06	14.71	0.01	7.02	308.2	9.37	0.26
6/22/2024 5:20	13.05	14.93	0.01	6.92	310.66	9.34	0.23
6/22/2024 5:30	13.03	14.85	0.01	7.09	311.47	9.37	0.21
6/22/2024 5:40	13.02	14.86	0.01	6.91	311.33	9.37	0.26
6/22/2024 5:50	13.01	14.73	0.01	7.02	307.91	9.37	0.34
6/22/2024 6:00	13	14.78	0.01	6.9	312.18	9.39	0.3
6/22/2024 6:10	12.99	14.76	0.01	6.96	306.81	9.38	0.21
6/22/2024 6:20	12.99	14.99	0.01	6.9	308.96	9.38	0.22
6/22/2024 6:30	12.99	14.96	0.01	6.94	309.05	9.39	0.23
6/22/2024 6:40	12.99	14.93	0.01	6.95	308.29	9.37	0.21
6/22/2024 6:50	12.99	14.88	0.01	6.96	309.67	9.42	0.22
6/22/2024 7:00	13	14.83	0.01	6.95	309.58	9.38	0.23
6/22/2024 7:10	13	14.67	0.01	7.02	304.68	9.4	0.21
6/22/2024 7:20	13.01	14.73	0.01	6.95	307.3	9.4	0.23
6/22/2024 7:30	13.02	14.51	0.01	7.01	306.82	9.39	0.22
6/22/2024 7:40	13.03	14.68	0.01	6.96	307.49	9.4	0.23
6/22/2024 7:50	13.03	14.55	0.01	7.01	305.63	9.38	0.23
6/22/2024 8:00	13.05	14.76	0.01	6.96	306.71	9.39	0.22
6/22/2024 8:10	13.05	14.72	0.01	7.01	307.49	9.41	0.22
6/22/2024 8:20	13.07	14.96	0.01	6.96	306.63	9.42	0.23
6/22/2024 8:30	13.07	14.81	0.01	7.01	308.16	9.4	0.22
6/22/2024 8:40	13.09	14.84	0.01	6.98	308.14	9.43	0.21
6/22/2024 8:50	13.1	14.69	0.01	7.04	306.17	9.4	0.23
6/22/2024 9:00	13.12	14.74	0.01	6.97	309.66	9.42	0.23
6/22/2024 9:10	13.13	14.75	0.01	7.04	307.34	9.42	0.26
6/22/2024 9:20	13.15	15.01	0.01	6.98	308.09	9.41	0.23
6/22/2024 9:30	13.16	14.78	0.01	7.04	305.12	9.42	0.27
6/22/2024 9:40	13.18	14.64	0.01	6.99	307.57	9.4	0.26
6/22/2024 9:50	13.19	14.7	0.01	7.07	304.72	9.38	0.29
6/22/2024 10:00	13.2	14.79	0.01	6.98	307.41	9.42	0.28
6/22/2024 10:10	13.21	14.74	0.01	7.02	305.86	9.39	0.3
6/22/2024 10:20	13.23	14.54	0.01	6.98	308.4	9.39	0.32
6/22/2024 10:30	13.24	14.59	0.01	7	308.38	9.4	0.29
6/22/2024 10:40	13.28	14.43	0.01	7	306.48	9.4	0.3
6/22/2024 10:50	13.3	14.28	0.01	7.03	304.89	9.38	0.24
6/22/2024 11:00	13.36	14.38	0.01	7.02	304.34	9.43	0.28
6/22/2024 11:10	13.4	14.13	0.01	7.05	303.27	9.42	0.22
6/22/2024 11:20	13.43	14.32	0.01	7.02	303.49	9.41	0.26
6/22/2024 11:30	13.43	14.44	0.01	7.07	301.07	9.4	0.28
6/22/2024 11:40	13.44	14.36	0.01	7.01	304.28	9.36	0.3

WLNG US Sonde 2024-06-17 to 2024-06-24

6/22/2024 11:50	13.44	14.43	0.01	7.04	304.05	9.36	0.44
6/22/2024 12:00	13.43	14.42	0.01	6.99	306.62	9.37	0.27
6/22/2024 12:10	13.43	14.51	0.01	7.04	304.49	9.35	0.24
6/22/2024 12:20	13.42	14.45	0.01	6.97	307.67	9.33	0.24
6/22/2024 12:30	13.41	14.52	0.01	7.05	304.19	9.35	0.24
6/22/2024 12:40	13.41	14.43	0.01	6.98	307.79	9.34	0.23
6/22/2024 12:50	13.4	14.52	0.01	7.01	308.84	9.31	0.25
6/22/2024 13:00	13.4	14.57	0.01	6.98	307.63	9.32	0.25
6/22/2024 13:10	13.41	14.55	0.01	7	305.32	9.35	0.23
6/22/2024 13:20	13.43	14.46	0.01	6.99	305.05	9.33	0.25
6/22/2024 13:30	13.45	14.58	0.01	7	304.33	9.35	0.27
6/22/2024 13:40	13.47	14.47	0.01	7.01	304.54	9.35	0.23
6/22/2024 13:50	13.49	14.34	0.01	7.02	306.75	9.36	0.27
6/22/2024 14:00	13.51	14.43	0.01	6.99	306.49	9.35	0.28
6/22/2024 14:10	13.52	14.45	0.01	7.01	306.98	9.34	0.26
6/22/2024 14:20	13.53	14.5	0.01	7	306.88	9.33	0.26
6/22/2024 14:30	13.53	14.57	0.01	7.06	306.45	9.32	0.24
6/22/2024 14:40	13.53	14.42	0.01	6.99	309.18	9.31	0.26
6/22/2024 14:50	13.52	14.51	0.01	7.03	307.03	9.31	0.26
6/22/2024 15:00	13.51	14.48	0.01	6.98	308.57	9.29	0.26
6/22/2024 15:10	13.5	14.53	0.01	7.05	308.08	9.34	0.24
6/22/2024 15:20	13.5	14.41	0.01	7	309.46	9.33	0.29
6/22/2024 15:30	13.48	14.24	0.01	7.02	310.93	9.31	0.27
6/22/2024 15:40	13.48	14.39	0.01	7.02	309.76	9.35	0.3
6/22/2024 15:50	13.49	14.46	0.01	7.06	307.47	9.33	0.28
6/22/2024 16:00	13.5	14.44	0.01	7.03	307.97	9.35	0.33
6/22/2024 16:10	13.5	14.63	0.01	7.07	308.19	9.36	0.26
6/22/2024 16:20	13.5	14.42	0.01	7.02	308.92	9.33	0.29
6/22/2024 16:30	13.49	14.55	0.01	7.04	309.53	9.33	0.45
6/22/2024 16:40	13.48	14.52	0.01	7.01	308.68	9.31	0.33
6/22/2024 16:50	13.46	14.45	0.01	7.03	309.83	9.32	0.28
6/22/2024 17:00	13.45	14.54	0.01	7.02	308.61	9.33	0.34
6/22/2024 17:10	13.43	14.7	0.01	7.03	310.59	9.32	0.26
6/22/2024 17:20	13.41	14.46	0.01	7	309.14	9.34	0.26
6/22/2024 17:30	13.39	14.38	0.01	7.05	308.23	9.34	0.27
6/22/2024 17:40	13.38	14.53	0.01	7.01	307.47	9.34	0.23
6/22/2024 17:50	13.36	14.61	0.01	7.07	307.47	9.34	0.27
6/22/2024 18:00	13.35	14.57	0.01	6.99	309.59	9.34	0.26
6/22/2024 18:10	13.34	14.47	0.01	7.07	307.92	9.31	0.25
6/22/2024 18:20	13.33	14.57	0.01	6.99	311.12	9.33	1.42
6/22/2024 18:30	13.32	14.63	0.01	7.04	308.77	9.32	0.26
6/22/2024 18:40	13.32	14.55	0.01	6.98	307.74	9.33	0.24
6/22/2024 18:50	13.32	14.66	0.01	7.06	307.19	9.34	0.32
6/22/2024 19:00	13.31	14.59	0.01	6.99	309.29	9.34	0.26
6/22/2024 19:10	13.3	14.6	0.01	7.03	308.24	9.33	0.37
6/22/2024 19:20	13.3	14.79	0.01	6.98	308.86	9.31	0.24
6/22/2024 19:30	13.29	14.72	0.01	6.98	309.99	9.3	0.24

WLNG US Sonde 2024-06-17 to 2024-06-24

6/22/2024 19:40	13.28	14.65	0.01	6.97	309.07	9.31	0.29
6/22/2024 19:50	13.28	14.68	0.01	6.97	312.95	9.31	0.25
6/22/2024 20:00	13.27	14.75	0.01	6.97	310.46	9.31	0.23
6/22/2024 20:10	13.26	14.77	0.01	7.03	307.81	9.31	0.25
6/22/2024 20:20	13.25	14.66	0.01	6.96	311.29	9.3	0.27
6/22/2024 20:30	13.23	14.76	0.01	7	311.27	9.3	0.24
6/22/2024 20:40	13.22	14.66	0.01	6.95	313.04	9.29	0.25
6/22/2024 20:50	13.21	14.57	0.01	7	311.58	9.28	0.23
6/22/2024 21:00	13.19	14.78	0.01	6.93	311.82	9.27	0.24
6/22/2024 21:10	13.18	14.78	0.01	7.01	310.77	9.3	0.24
6/22/2024 21:20	13.16	14.72	0.01	6.94	311.41	9.28	0.24
6/22/2024 21:30	13.15	14.79	0.01	6.99	311.72	9.28	0.24
6/22/2024 21:40	13.14	14.8	0.01	6.94	312.91	9.29	0.28
6/22/2024 21:50	13.12	14.82	0.01	7.03	310.51	9.31	0.22
6/22/2024 22:00	13.1	14.8	0.01	6.94	312.37	9.29	0.24
6/22/2024 22:10	13.09	14.97	0.01	7.02	310.53	9.31	0.24
6/22/2024 22:20	13.08	14.72	0.01	6.93	312.46	9.3	0.25
6/22/2024 22:30	13.06	14.86	0.01	6.99	310.41	9.31	0.23
6/22/2024 22:40	13.04	14.78	0.01	6.9	310.68	9.26	0.23
6/22/2024 22:50	13.03	14.62	0.01	6.92	313.11	9.3	0.26
6/22/2024 23:00	13.01	14.81	0.01	6.89	313	9.21	0.37
6/22/2024 23:10	13	14.91	0.01	7.02	311.57	9.32	0.24
6/22/2024 23:20	12.98	14.76	0.01	6.87	312.43	9.31	0.27
6/22/2024 23:30	12.96	14.78	0.01	7.07	310.72	9.34	0.26
6/22/2024 23:40	12.95	14.72	0.01	6.86	312.96	9.33	0.24
6/22/2024 23:50	12.94	14.75	0.01	6.99	308.74	9.36	0.26
6/23/2024 0:00	12.92	14.71	0.01	6.89	314.68	9.35	0.26
6/23/2024 0:10	12.91	14.86	0.01	6.91	312.33	9.39	1.4
6/23/2024 0:20	12.9	14.74	0.01	6.88	312.84	9.36	0.22
6/23/2024 0:30	12.88	14.55	0.01	7.01	310.44	9.37	0.22
6/23/2024 0:40	12.86	14.74	0.01	6.9	314.06	9.39	0.23
6/23/2024 0:50	12.85	14.71	0.01	6.93	312.13	9.39	0.22
6/23/2024 1:00	12.83	14.63	0.01	6.93	311.37	9.37	0.23
6/23/2024 1:10	12.81	14.65	0.01	6.96	310.55	9.4	0.22
6/23/2024 1:20	12.8	14.58	0.01	6.92	309.71	9.38	0.22
6/23/2024 1:30	12.79	14.6	0.01	6.94	309.5	9.39	0.22
6/23/2024 1:40	12.77	14.71	0.01	6.93	309.89	9.4	0.2
6/23/2024 1:50	12.76	14.61	0.01	6.97	311.97	9.43	0.23
6/23/2024 2:00	12.75	14.58	0.01	6.94	311.42	9.4	0.22
6/23/2024 2:10	12.73	14.65	0.01	6.98	307.28	9.42	0.21
6/23/2024 2:20	12.72	14.58	0.01	6.94	307.93	9.38	0.25
6/23/2024 2:30	12.7	14.65	0.01	6.94	308.23	9.44	0.22
6/23/2024 2:40	12.69	14.56	0.01	6.95	308.07	9.41	0.29
6/23/2024 2:50	12.67	14.54	0.01	7.02	307.19	9.42	0.21
6/23/2024 3:00	12.65	14.52	0.01	6.95	309.84	9.42	0.25
6/23/2024 3:10	12.64	14.6	0.01	6.96	310.66	9.45	0.22
6/23/2024 3:20	12.62	14.51	0.01	6.95	311.42	9.43	0.23

WLNG US Sonde 2024-06-17 to 2024-06-24

6/23/2024 3:30	12.6	14.59	0.01	7	307.2	9.46	0.22
6/23/2024 3:40	12.58	14.55	0.01	6.95	309.66	9.44	0.22
6/23/2024 3:50	12.57	14.58	0.01	6.96	308.96	9.46	0.22
6/23/2024 4:00	12.55	14.46	0.01	6.95	309	9.44	0.22
6/23/2024 4:10	12.53	14.53	0.01	7.02	306.91	9.46	0.22
6/23/2024 4:20	12.52	14.52	0.01	6.95	308.47	9.46	0.22
6/23/2024 4:30	12.51	14.59	0.01	6.99	308.06	9.49	0.22
6/23/2024 4:40	12.51	14.56	0.01	6.93	308.4	9.46	0.22
6/23/2024 4:50	12.51	14.55	0.01	6.98	306.65	9.48	0.23
6/23/2024 5:00	12.51	14.51	0.01	6.95	308.1	9.48	0.3
6/23/2024 5:10	12.5	14.58	0.01	7	305.62	9.49	0.2
6/23/2024 5:20	12.5	14.53	0.01	6.94	306.46	9.46	0.3
6/23/2024 5:30	12.5	14.56	0.01	6.97	305.08	9.47	0.2
6/23/2024 5:40	12.49	14.41	0.01	6.95	305.34	9.48	0.21
6/23/2024 5:50	12.49	14.61	0.01	7.01	305.4	9.47	0.21
6/23/2024 6:00	12.48	14.41	0.01	6.95	306.77	9.47	0.19
6/23/2024 6:10	12.48	14.55	0.01	7.01	305.59	9.48	0.2
6/23/2024 6:20	12.48	14.43	0.01	6.96	308.21	9.46	0.22
6/23/2024 6:30	12.47	14.42	0.01	6.97	306.77	9.48	0.34
6/23/2024 6:40	12.47	14.35	0.01	6.96	307.38	9.48	0.2
6/23/2024 6:50	12.47	14.24	0.01	7.03	305.72	9.5	0.2
6/23/2024 7:00	12.47	14.36	0.01	6.97	310.58	9.5	0.2
6/23/2024 7:10	12.46	14.33	0.01	7.03	307.06	9.5	0.2
6/23/2024 7:20	12.46	14.33	0.01	6.96	311.37	9.47	0.25
6/23/2024 7:30	12.46	14.38	0.01	7.04	307.54	9.5	0.21
6/23/2024 7:40	12.46	14.36	0.01	6.98	308.85	9.5	0.2
6/23/2024 7:50	12.47	14.42	0.01	7.02	309.36	9.53	0.18
6/23/2024 8:00	12.47	14.33	0.01	6.98	310.13	9.52	0.2
6/23/2024 8:10	12.46	14.42	0.01	7.06	307.1	9.54	0.22
6/23/2024 8:20	12.47	14.29	0.01	6.99	309.63	9.52	0.24
6/23/2024 8:30	12.47	14.36	0.01	7.08	306.79	9.55	0.22
6/23/2024 8:40	12.46	14.27	0.01	7.01	309.4	9.53	0.22
6/23/2024 8:50	12.46	14.37	0.01	7.02	309.07	9.55	0.19
6/23/2024 9:00	12.45	14.26	0.01	7.01	308.59	9.53	0.21
6/23/2024 9:10	12.46	14.25	0.01	7.05	309.14	9.56	0.22
6/23/2024 9:20	12.46	14.25	0.01	7.02	311.56	9.55	0.2
6/23/2024 9:30	12.46	14.31	0.01	7.05	310.41	9.57	0.19
6/23/2024 9:40	12.47	14.25	0.01	7.01	311.32	9.54	0.21
6/23/2024 9:50	12.47	14.16	0.01	7.1	306.57	9.58	0.34
6/23/2024 10:00	12.47	14.3	0.01	7.01	310.41	9.54	0.26
6/23/2024 10:10	12.47	14.42	0.01	7.05	309.3	9.57	0.23
6/23/2024 10:20	12.48	14.25	0.01	7	311.22	9.53	0.26
6/23/2024 10:30	12.5	14.29	0.01	7.07	308.41	9.6	0.24
6/23/2024 10:40	12.53	14.22	0.01	7.03	309.29	9.55	0.25
6/23/2024 10:50	12.55	14.09	0.01	7.07	307.75	9.59	0.21
6/23/2024 11:00	12.56	14.26	0.01	7.05	309.34	9.56	0.61
6/23/2024 11:10	12.58	14.35	0.01	7.1	306.5	9.59	0.63

WLNG US Sonde 2024-06-17 to 2024-06-24

6/23/2024 11:20	12.59	14.17	0.01	7.03	308.95	9.55	0.25
6/23/2024 11:30	12.61	14.16	0.01	7.07	307.83	9.53	0.21
6/23/2024 11:40	12.61	14.33	0.01	7.03	309.32	9.54	0.2
6/23/2024 11:50	12.61	14.29	0.01	7.08	307.14	9.54	0.22
6/23/2024 12:00	12.61	14.3	0.01	7	310.13	9.52	0.23
6/23/2024 12:10	12.6	14.58	0.01	7.05	308.48	9.53	0.21
6/23/2024 12:20	12.6	14.26	0.01	7.02	305.83	9.53	0.22
6/23/2024 12:30	12.59	14.27	0.01	7.05	304.31	9.55	0.26
6/23/2024 12:40	12.59	14.33	0.01	7.02	302.81	9.53	0.34
6/23/2024 12:50	12.59	14.2	0.01	7.07	303.37	9.54	0.19
6/23/2024 13:00	12.59	14.32	0.01	7.03	306.16	9.54	0.27
6/23/2024 13:10	12.6	14.1	0.01	7.07	304.23	9.58	0.23
6/23/2024 13:20	12.61	14.27	0.01	7.04	305.94	9.56	0.21
6/23/2024 13:30	12.63	14.11	0.01	7.08	305.74	9.59	0.21
6/23/2024 13:40	12.65	14.28	0.01	7.05	307.57	9.58	0.21
6/23/2024 13:50	12.66	14.25	0.01	7.07	306.71	9.56	0.21
6/23/2024 14:00	12.69	14.28	0.01	7.05	307.43	9.55	0.21
6/23/2024 14:10	12.72	14.13	0.01	7.07	306.39	9.58	0.21
6/23/2024 14:20	12.75	14.26	0.01	7.06	305.44	9.57	0.2
6/23/2024 14:30	12.76	14.33	0.01	7.08	304.75	9.56	0.21
6/23/2024 14:40	12.77	14.28	0.01	7.02	306.69	9.53	0.22
6/23/2024 14:50	12.78	14.27	0.01	7.07	304.62	9.55	0.2
6/23/2024 15:00	12.78	14.32	0.01	7.02	307.27	9.5	0.19
6/23/2024 15:10	12.78	14.09	0.01	7.06	305	9.52	0.21
6/23/2024 15:20	12.78	14.34	0.01	7.03	305.65	9.52	0.3
6/23/2024 15:30	12.79	14.36	0.01	7.03	305.93	9.52	0.21
6/23/2024 15:40	12.81	14.29	0.01	7.03	304.68	9.51	0.19
6/23/2024 15:50	12.83	14.35	0.01	7.09	302.09	9.54	0.24
6/23/2024 16:00	12.86	14.32	0.01	7.03	305.24	9.5	0.68
6/23/2024 16:10	12.87	14.33	0.01	7.07	303.7	9.52	0.2
6/23/2024 16:20	12.89	14.3	0.01	7.04	305.33	9.49	0.22
6/23/2024 16:30	12.9	14.47	0.01	7.08	301.09	9.5	0.25
6/23/2024 16:40	12.91	14.35	0.01	7.03	303.39	9.48	0.2
6/23/2024 16:50	12.9	14.32	0.01	7.04	305.83	9.5	0.2
6/23/2024 17:00	12.9	14.37	0.01	7.01	307.52	9.46	0.25
6/23/2024 17:10	12.89	14.55	0.01	7.04	306.96	9.47	0.22
6/23/2024 17:20	12.89	14.41	0.01	7.01	308.84	9.43	0.23
6/23/2024 17:30	12.89	14.22	0.01	7.05	307.01	9.47	0.19
6/23/2024 17:40	12.91	14.4	0.01	7.01	310.2	9.49	0.24
6/23/2024 17:50	12.92	14.5	0.01	7.06	308.26	9.49	0.23
6/23/2024 18:00	12.93	14.4	0.01	7.01	309.42	9.46	0.26
6/23/2024 18:10	12.94	14.37	0.01	7.11	304.11	9.46	0.2
6/23/2024 18:20	12.94	14.35	0.01	7	309.23	9.45	0.21
6/23/2024 18:30	12.93	14.3	0.01	7.04	308.03	9.45	0.59
6/23/2024 18:40	12.92	14.35	0.01	6.98	309.75	9.46	0.29
6/23/2024 18:50	12.92	14.49	0.01	7.03	308.27	9.42	0.21
6/23/2024 19:00	12.91	14.48	0.01	6.99	309.32	9.42	0.2

WLNG US Sonde 2024-06-17 to 2024-06-24

6/23/2024 19:10	12.9	14.42	0.01	7.07	306.38	9.47	0.23
6/23/2024 19:20	12.9	14.42	0.01	6.98	309.88	9.39	0.24
6/23/2024 19:30	12.89	14.31	0.01	7.04	308.98	9.43	0.24
6/23/2024 19:40	12.88	14.46	0.01	6.99	311.17	9.43	0.22
6/23/2024 19:50	12.86	14.47	0.01	7.05	308.66	9.44	2.71
6/23/2024 20:00	12.85	14.63	0.01	6.96	311.48	9.4	0.22
6/23/2024 20:10	12.83	14.56	0.01	7.03	308.9	9.4	0.22
6/23/2024 20:20	12.81	14.56	0.01	6.95	311.71	9.39	0.21
6/23/2024 20:30	12.79	14.42	0.01	7.04	309.48	9.42	0.23
6/23/2024 20:40	12.77	14.53	0.01	6.96	313	9.38	0.23
6/23/2024 20:50	12.75	14.51	0.01	7.03	310.53	9.4	0.22
6/23/2024 21:00	12.73	14.44	0.01	6.94	313.24	9.4	0.24
6/23/2024 21:10	12.7	14.42	0.01	7.02	308.37	9.39	0.22
6/23/2024 21:20	12.68	14.48	0.01	6.95	312.03	9.43	0.22
6/23/2024 21:30	12.66	14.53	0.01	6.98	308.61	9.41	0.36
6/23/2024 21:40	12.63	14.44	0.01	6.95	311.49	9.4	0.23
6/23/2024 21:50	12.61	14.35	0.01	6.98	308.79	9.44	0.22
6/23/2024 22:00	12.6	14.57	0.01	6.95	311.01	9.44	0.21
6/23/2024 22:10	12.58	14.52	0.01	6.95	309.36	9.47	0.41
6/23/2024 22:20	12.55	14.47	0.01	6.93	310.02	9.44	0.24
6/23/2024 22:30	12.53	14.6	0.01	6.96	310.83	9.45	0.38
6/23/2024 22:40	12.51	14.43	0.01	6.94	312.21	9.43	0.27
6/23/2024 22:50	12.49	14.42	0.01	6.98	311.65	9.47	0.26
6/23/2024 23:00	12.47	14.51	0.01	6.95	311.59	9.46	0.19
6/23/2024 23:10	12.45	14.65	0.01	6.96	311.44	9.46	0.22
6/23/2024 23:20	12.43	14.46	0.01	6.95	309.83	9.45	0.21
6/23/2024 23:30	12.41	14.58	0.01	6.99	310.37	9.45	0.22
6/23/2024 23:40	12.4	14.49	0.01	6.94	312.2	9.49	0.2
6/23/2024 23:50	12.38	14.66	0.01	6.98	311.9	9.49	0.2
6/24/2024 0:00	12.36	14.48	0.01	6.96	312.92	9.47	0.2
6/24/2024 0:10	12.35	14.7	0.01	6.99	313.93	9.53	0.19
6/24/2024 0:20	12.34	14.48	0.01	6.96	314.53	9.44	0.18
6/24/2024 0:30	12.33	14.53	0.01	7.03	311.68	9.45	1.88
6/24/2024 0:40	12.31	14.53	0.01	6.95	315.11	9.48	0.25
6/24/2024 0:50	12.3	14.67	0.01	7.01	313.13	9.47	0.2
6/24/2024 1:00	12.29	14.65	0.01	6.95	316.15	9.49	0.19
6/24/2024 1:10	12.28	14.8	0.01	7	315.14	9.46	0.31
6/24/2024 1:20	12.27	15.09	0.01	6.97	314.72	9.49	0.2
6/24/2024 1:30	12.26	15.43	0.01	7.03	312.74	9.5	0.19
6/24/2024 1:40	12.25	15.36	0.01	6.99	314.42	9.52	0.17
6/24/2024 1:50	12.23	15.58	0.01	7.01	311.47	9.53	0.24
6/24/2024 2:00	12.22	15.53	0.01	6.97	313.53	9.55	0.2
6/24/2024 2:10	12.21	15.54	0.01	7.07	309.55	9.52	0.18
6/24/2024 2:20	12.2	15.6	0.01	6.97	313.21	9.53	0.19
6/24/2024 2:30	12.2	15.8	0.01	7.04	311.68	9.58	0.25
6/24/2024 2:40	12.19	15.61	0.01	6.96	313.44	9.55	0.2
6/24/2024 2:50	12.18	15.6	0.01	6.99	312.03	9.58	0.21

WLNG US Sonde 2024-06-17 to 2024-06-24

6/24/2024 3:00	12.18	15.58	0.01	6.96	312.56	9.56	0.17
6/24/2024 3:10	12.17	15.69	0.01	7.01	310.83	9.53	0.2
6/24/2024 3:20	12.16	15.6	0.01	6.97	312.83	9.57	0.2
6/24/2024 3:30	12.15	15.47	0.01	7.03	311.03	9.58	0.2
6/24/2024 3:40	12.14	15.34	0.01	6.96	314.27	9.59	0.18
6/24/2024 3:50	12.13	15.42	0.01	7.05	310.72	9.56	0.2
6/24/2024 4:00	12.13	15.34	0.01	6.97	315.41	9.58	0.2
6/24/2024 4:10	12.12	15.44	0.01	7	316.34	9.6	0.2
6/24/2024 4:20	12.11	15.46	0.01	6.98	315.96	9.56	0.19
6/24/2024 4:30	12.1	15.61	0.01	7.01	315.39	9.6	0.19
6/24/2024 4:40	12.1	15.68	0.01	6.98	315.54	9.56	0.19
6/24/2024 4:50	12.09	15.9	0.01	7.04	312.59	9.59	0.2
6/24/2024 5:00	12.08	16.21	0.01	6.97	314.41	9.61	0.19
6/24/2024 5:10	12.07	16.61	0.01	7.06	309.63	9.59	0.22
6/24/2024 5:20	12.07	16.69	0.01	6.98	311.38	9.6	0.8
6/24/2024 5:30	12.06	17.07	0.01	7.02	309.81	9.58	1.09
6/24/2024 5:40	12.05	17.13	0.01	6.99	310.73	9.62	0.21
6/24/2024 5:50	12.04	17.11	0.01	7	309.35	9.57	0.29
6/24/2024 6:00	12.04	17.43	0.01	6.99	310.59	9.59	0.2
6/24/2024 6:10	12.03	17.68	0.01	7.06	306.9	9.59	0.21
6/24/2024 6:20	12.03	17.88	0.01	6.98	310.34	9.62	0.2
6/24/2024 6:30	12.02	18.29	0.01	7.02	306.87	9.61	0.2
6/24/2024 6:40	12.02	18.7	0.01	7.01	306.51	9.63	0.19
6/24/2024 6:50	12.01	18.71	0.01	7.05	305.64	9.62	0.19
6/24/2024 7:00	12.01	18.64	0.01	7.02	307.42	9.64	0.19
6/24/2024 7:10	12.01	18.56	0.01	7.07	306.49	9.57	0.18
6/24/2024 7:20	12.02	18.49	0.01	7.01	308.42	9.62	0.19
6/24/2024 7:30	12.02	18.52	0.01	7.09	305.47	9.64	0.17
6/24/2024 7:40	12.03	18.15	0.01	7.02	308.68	9.62	0.17
6/24/2024 7:50	12.03	17.88	0.01	7.09	306.02	9.62	0.2
6/24/2024 8:00	12.05	17.83	0.01	7.03	308.84	9.66	0.2
6/24/2024 8:10	12.06	17.65	0.01	7.06	308.14	9.66	0.19
6/24/2024 8:20	12.08	17.35	0.01	7.02	309.23	9.63	0.18
6/24/2024 8:30	12.09	17.29	0.01	7.04	309.83	9.65	0.24
6/24/2024 8:40	12.1	16.97	0.01	7.02	309.49	9.65	0.19
6/24/2024 8:50	12.12	16.97	0.01	7.11	306.37	9.67	0.25
6/24/2024 9:00	12.14	16.72	0.01	7.03	307.57	9.65	0.25
6/24/2024 9:10	12.15	16.66	0.01	7.12	303.8	9.68	0.2
6/24/2024 9:20	12.17	16.58	0.01	7.04	303.91	9.67	0.17
6/24/2024 9:30	12.18	16.42	0.01	7.12	301.29	9.66	0.17
6/24/2024 9:40	12.2	16.19	0.01	7.04	304.76	9.64	0.19
6/24/2024 9:50	12.23	16.27	0.01	7.1	304.41	9.66	0.2
6/24/2024 10:00	12.26	16.03	0.01	7.06	305.65	9.66	0.21
6/24/2024 10:10	12.29	15.79	0.01	7.09	304.2	9.69	0.23
6/24/2024 10:20	12.33	15.9	0.01	7.07	305.06	9.65	0.17
6/24/2024 10:30	12.36	16.06	0.01	7.13	302.79	9.66	0.18
6/24/2024 10:40	12.39	15.85	0.01	7.06	306.11	9.67	0.21

WLNG US Sonde 2024-06-17 to 2024-06-24

6/24/2024 10:50	12.41	15.92	0.01	7.09	305.01	9.64	0.19
6/24/2024 11:00	12.45	15.68	0.01	7.08	304.33	9.63	0.19
6/24/2024 11:10	12.49	15.55	0.01	7.11	304.39	9.65	0.2
6/24/2024 11:20	12.58	15.64	0.01	7.08	305.87	9.63	0.27
6/24/2024 11:30	12.59	15.5	0.01	7.1	305.5	9.63	0.17
6/24/2024 11:40	12.58	15.55	0.01	7.04	306.38	9.61	0.19
6/24/2024 11:50	12.6	15.5	0.01	7.06	306.09	9.55	0.2
6/24/2024 12:00	12.62	15.36	0.01	7.04	305.02	9.54	0.21
6/24/2024 12:10	12.64	15.42	0.01	7.12	303.46	9.6	0.27
6/24/2024 12:20	12.67	15.12	0.01	7.09	304.51	9.57	1.51
6/24/2024 12:30	12.71	15.2	0.01	7.14	301.92	9.61	0.19
6/24/2024 12:40	12.81	15	0.01	7.09	304.01	9.58	0.23
6/24/2024 12:50	12.82	14.88	0.01	7.16	302.33	9.63	0.77
6/24/2024 13:00	12.86	14.85	0.01	7.1	304.37	9.59	0.21
6/24/2024 13:10	12.88	15.04	0.01	7.17	299.04	9.58	0.21
6/24/2024 13:20	12.9	14.88	0.01	7.09	302.93	9.56	0.21
6/24/2024 13:30	12.92	14.89	0.01	7.16	298.69	9.58	0.95
6/24/2024 13:40	12.92	14.85	0.01	7.08	302.42	9.53	0.23
6/24/2024 13:50	12.92	14.94	0.01	7.09	304.21	9.55	0.22
6/24/2024 14:00	12.92	14.9	0.01	7.04	305.01	9.53	0.26
6/24/2024 14:10	12.91	15.05	0.01	7.05	305.44	9.52	0.23
6/24/2024 14:20	12.93	14.83	0.01	7.04	305.71	9.49	0.23
6/24/2024 14:30	12.96	14.91	0.01	7.11	303.57	9.55	0.29
6/24/2024 14:40	13.02	14.68	0.01	7.06	305.14	9.53	0.23
6/24/2024 14:50	13.05	15.01	0.01	7.14	299.55	9.53	0.36
6/24/2024 15:00	13.09	14.75	0.01	7.08	302.98	9.53	0.22
6/24/2024 15:10	13.14	14.65	0.01	7.09	302.9	9.53	0.24
6/24/2024 15:20	13.2	14.61	0.01	7.09	303.57	9.5	0.25
6/24/2024 15:30	13.22	14.71	0.01	7.1	302.93	9.51	0.25
6/24/2024 15:40	13.24	14.62	0.01	7.07	303.86	9.51	0.24
6/24/2024 15:50	13.26	14.74	0.01	7.11	303.59	9.51	0.24
6/24/2024 16:00	13.27	14.55	0.01	7.07	304.07	9.47	0.21
6/24/2024 16:10	13.28	14.79	0.01	7.11	303.88	9.46	0.26
6/24/2024 16:20	13.31	14.71	0.01	7.05	305.81	9.45	0.24
6/24/2024 16:30	13.32	15.03	0.01	7.09	303.7	9.45	0.29
6/24/2024 16:40	13.3	14.69	0.01	7.05	306.58	9.42	0.25
6/24/2024 16:50	13.28	14.75	0.01	7.03	308.47	9.4	0.23
6/24/2024 17:00	13.28	14.74	0.01	7.01	307.67	9.38	0.22
6/24/2024 17:10	13.29	14.93	0.01	7.09	304.99	9.37	0.23
6/24/2024 17:20	13.28	14.73	0.01	7.01	306.71	9.37	0.23
6/24/2024 17:30	13.27	14.83	0.01	7.06	305.32	9.4	0.24
6/24/2024 17:40	13.27	14.84	0.01	7.01	307.71	9.37	0.22
6/24/2024 17:50	13.28	14.88	0.01	7.04	307.14	9.4	0.26
6/24/2024 18:00	13.29	14.75	0.01	7.01	306.59	9.4	0.24
6/24/2024 18:10	13.28	14.96	0.01	7.04	304.96	9.4	0.23
6/24/2024 18:20	13.28	14.73	0.01	6.99	306.46	9.37	0.23
6/24/2024 18:30	13.29	14.84	0.01	7.01	307.56	9.36	0.24

WLNG US Sonde 2024-06-17 to 2024-06-24

6/24/2024 18:40	13.28	14.82	0.01	6.98	307.57	9.34	0.29
6/24/2024 18:50	13.27	14.96	0.01	7	308.56	9.35	0.3
6/24/2024 19:00	13.25	14.82	0.01	6.98	307.68	9.35	0.24
6/24/2024 19:10	13.24	14.97	0.01	7	309.1	9.35	0.25
6/24/2024 19:20	13.21	14.83	0.01	6.96	309.41	9.34	0.23
6/24/2024 19:30	13.18	14.93	0.01	7.03	306.33	9.36	0.26
6/24/2024 19:40	13.15	14.87	0.01	6.91	310.8	9.36	0.21
6/24/2024 19:50	13.12	14.98	0.01	6.92	310.28	9.37	0.23
6/24/2024 20:00	13.08	14.88	0.01	6.92	312.68	9.36	0.26
6/24/2024 20:10	13.06	15.13	0.01	6.94	311.66	9.37	1.51
6/24/2024 20:20	13.03	14.94	0.01	6.9	311.12	9.37	0.26
6/24/2024 20:30	13	15.33	0.01	6.91	312.74	9.38	0.27
6/24/2024 20:40	12.97	15.01	0.01	6.88	309.99	9.31	11.72
6/24/2024 20:50	12.95	15.37	0.01	7.1	313.78	9.41	0.24
6/24/2024 21:00	12.92	15.02	0.01	6.92	311.86	9.39	78.44
6/24/2024 21:10	12.9	15.21	0.01	6.98	305.73	9.36	0.62
6/24/2024 21:20	12.86	15.05	0.01	6.9	311.28	9.36	93.2
6/24/2024 21:30	12.83	15.2	0.01	6.95	309.19	9.42	0.22
6/24/2024 21:40	12.8	15.04	0.01	6.88	311.43	9.35	9.29
6/24/2024 21:50	12.78	15.56	0.01	6.99	306.12	9.38	0.23
6/24/2024 22:00	12.74	14.88	0.01	6.89	309.43	9.36	166.06
6/24/2024 22:10	12.72	15.74	0.01	6.96	310	9.47	0.19
6/24/2024 22:20	12.69	14.92	0.01	6.88	308.18	9.36	73.33
6/24/2024 22:30	12.66	15.6	0.01	6.91	308.47	9.4	0.23
6/24/2024 22:40	12.63	14.86	0.01	6.87	308.42	9.35	155.25
6/24/2024 22:50	12.61	14.86	0.01	6.95	305.02	9.41	0.21
6/24/2024 23:00	12.58	15.05	0.01	6.92	309.24	9.25	0.23
6/24/2024 23:10	12.55	14.98	0.01	6.98	309.05	9.39	0.21
6/24/2024 23:20	12.53	14.87	0.01	6.92	283.03	9.43	3.91
6/24/2024 23:30	12.51	13.42	0.01	7.1	283.2	9.43	0.21
6/24/2024 23:40	12.48	14.98	0.01	6.93	295.25	9.43	0.4
6/24/2024 23:50	12.46	15.05	0.01	6.99	292.78	9.46	5.88

WLNG DS 2024-06-17 to 2024-06-24

Received	Temperature C	Specific Conductivity $\mu\text{S/cm}$	Salinity PSU	pH	ORP mV	Dissolved Oxygen Concentration mg/L	Turbidity NTU
6/17/2024 0:00	10.62	19.88	0.01	7	329.33	9.99	0
6/17/2024 0:10	10.61	20.72	0.01	7	329.24	10	0.5
6/17/2024 0:20	10.61	19.95	0.01	7	330.05	10	0.08
6/17/2024 0:30	10.6	20.76	0.01	7	330.4	9.99	0
6/17/2024 0:40	10.59	19.93	0.01	6.99	332.1	9.99	0.27
6/17/2024 0:50	10.58	20.76	0.01	7	331.68	10	0.97
6/17/2024 1:00	10.57	19.97	0.01	7	332.96	10	0.36
6/17/2024 1:10	10.56	20.73	0.01	6.99	333.3	10	0
6/17/2024 1:20	10.55	19.97	0.01	7.01	333.83	10.01	0.08
6/17/2024 1:30	10.55	20.54	0.01	6.99	334.91	10.01	0.03
6/17/2024 1:40	10.53	19.95	0.01	7.01	334.93	10.02	0
6/17/2024 1:50	10.53	20.71	0.01	6.99	336.03	10.01	17.21
6/17/2024 2:00	10.52	19.87	0.01	7	336.75	10.01	0
6/17/2024 2:10	10.51	19.84	0.01	7	336.49	10.01	0.14
6/17/2024 2:20	10.5	19.88	0.01	6.99	337.97	10.02	1.01
6/17/2024 2:30	10.49	20.67	0.01	7	337.56	10.02	64.64
6/17/2024 2:40	10.48	19.84	0.01	6.99	338.94	10.02	0
6/17/2024 2:50	10.48	19.63	0.01	6.99	338.69	10.01	0
6/17/2024 3:00	10.47	19.78	0.01	7.01	339.46	10.02	0
6/17/2024 3:10	10.47	20.49	0.01	7.01	339.08	10.02	0
6/17/2024 3:20	10.47	19.78	0.01	6.99	341.05	10.02	0.01
6/17/2024 3:30	10.46	19.77	0.01	7	340.11	10.03	0
6/17/2024 3:40	10.46	19.87	0.01	6.99	342.03	10.02	0.35
6/17/2024 3:50	10.46	20.52	0.01	7	341.36	10.03	0
6/17/2024 4:00	10.45	19.78	0.01	7	342.47	10.02	0
6/17/2024 4:10	10.45	19.69	0.01	6.99	343.3	10.03	0
6/17/2024 4:20	10.44	19.88	0.01	6.98	344.65	10.03	0.33
6/17/2024 4:30	10.44	20.59	0.01	7	343.81	10.03	0.11
6/17/2024 4:40	10.44	19.99	0.01	7	344.73	10.04	0.06
6/17/2024 4:50	10.43	20.59	0.01	6.99	345.58	10.03	0.01
6/17/2024 5:00	10.43	19.84	0.01	6.99	346.56	10.03	0
6/17/2024 5:10	10.42	19.68	0.01	6.99	346.65	10.03	1.02
6/17/2024 5:20	10.42	19.91	0.01	7	347.29	10.03	0.1
6/17/2024 5:30	10.42	20.63	0.01	6.99	347.66	10.03	0.16
6/17/2024 5:40	10.42	19.8	0.01	6.98	348.85	10.04	0
6/17/2024 5:50	10.42	20.51	0.01	6.99	348.86	10.03	0.02
6/17/2024 6:00	10.42	19.76	0.01	7	349.02	10.04	0
6/17/2024 6:10	10.42	20.62	0.01	7.01	348.79	10.05	0
6/17/2024 6:20	10.42	19.83	0.01	7.01	349.41	10.04	0
6/17/2024 6:30	10.42	19.91	0.01	7.01	349.38	10.05	0.5
6/17/2024 6:40	10.42	19.83	0.01	7.03	349.4	10.06	0.32
6/17/2024 6:50	10.43	19.81	0.01	6.99	346.98	10.05	0.01
6/17/2024 7:00	10.44	19.76	0.01	7	344.86	10.07	0.09
6/17/2024 7:10	10.45	18.93	0.01	7.01	342.47	10.07	0.53

WLNG DS 2024-06-17 to 2024-06-24

6/17/2024 7:20	10.45	19.78	0.01	7	341.85	10.07	0
6/17/2024 7:30	10.46	19.2	0.01	7.03	338.33	10.06	0
6/17/2024 7:40	10.48	19.61	0.01	7.05	335.69	10.08	0.27
6/17/2024 7:50	10.49	19.78	0.01	7.05	335.25	10.08	0.19
6/17/2024 8:00	10.5	19.61	0.01	7.04	335.1	10.08	0
6/17/2024 8:10	10.52	18.94	0.01	7.04	334.41	10.08	0.41
6/17/2024 8:20	10.53	19.77	0.01	7.02	333.94	10.08	0.06
6/17/2024 8:30	10.53	19.64	0.01	7.03	333.92	10.06	0
6/17/2024 8:40	10.54	19.61	0.01	7.03	326.74	10.07	0.07
6/17/2024 8:50	10.55	18.65	0.01	7.04	331.21	10.07	0
6/17/2024 9:00	10.56	19.65	0.01	7.04	329.66	10.07	0
6/17/2024 9:10	10.58	19.47	0.01	7.05	330.56	10.08	0
6/17/2024 9:20	10.6	19.2	0.01	7.05	329.4	10.08	0
6/17/2024 9:30	10.62	19.12	0.01	7.05	331.83	10.09	0
6/17/2024 9:40	10.64	18.99	0.01	7.05	326.59	10.09	0
6/17/2024 9:50	10.67	19.66	0.01	7.05	332.21	10.08	0
6/17/2024 10:00	10.69	18.81	0.01	7.06	334.27	10.08	0
6/17/2024 10:10	10.73	18.55	0.01	7.06	334.78	10.07	0
6/17/2024 10:20	10.77	18.63	0.01	7.06	329.68	10.06	0.13
6/17/2024 10:30	10.82	17.8	0.01	7.07	332.64	10.07	0.12
6/17/2024 10:40	10.85	18.74	0.01	7.07	332.2	10.05	0.4
6/17/2024 10:50	10.87	18.89	0.01	7.07	332.01	10.05	0.23
6/17/2024 11:00	10.88	18.85	0.01	7.06	330.75	10.05	0
6/17/2024 11:10	10.9	18.86	0.01	7.07	330.58	10.04	0
6/17/2024 11:20	10.92	18.92	0.01	7.08	328.11	10.02	0
6/17/2024 11:30	10.95	18.99	0.01	7.09	328.88	10.03	0.14
6/17/2024 11:40	10.98	18.94	0.01	7.09	321.96	10.03	0
6/17/2024 11:50	11.01	18.47	0.01	7.09	326.03	10.01	0.3
6/17/2024 12:00	11.02	19.1	0.01	7.08	322.79	10.01	1.65
6/17/2024 12:10	11.04	19.07	0.01	7.08	325.95	10.01	0.05
6/17/2024 12:20	11.05	19.03	0.01	7.11	324.66	10.02	0.04
6/17/2024 12:30	11.07	18.17	0.01	7.1	324.55	10	0
6/17/2024 12:40	11.07	19.14	0.01	7.09	324.31	10	0
6/17/2024 12:50	11.09	19.15	0.01	7.11	324.71	9.99	1.35
6/17/2024 13:00	11.09	19.17	0.01	7.08	323.45	10	0
6/17/2024 13:10	11.1	18.5	0.01	7.11	322.85	10	1.37
6/17/2024 13:20	11.13	19.26	0.01	7.1	319.41	9.99	0
6/17/2024 13:30	11.16	20.06	0.01	7.1	324.03	9.98	0.23
6/17/2024 13:40	11.18	19.13	0.01	7.09	326.03	9.99	0
6/17/2024 13:50	11.2	20.04	0.01	7.11	325.11	9.98	0
6/17/2024 14:00	11.21	19.28	0.01	7.09	326.31	9.97	0
6/17/2024 14:10	11.22	19.36	0.01	7.11	325.31	9.97	0
6/17/2024 14:20	11.24	19.33	0.01	7.11	323.66	9.95	0
6/17/2024 14:30	11.28	18.54	0.01	7.11	324.38	9.96	0.63
6/17/2024 14:40	11.32	19.2	0.01	7.1	323.76	9.95	0
6/17/2024 14:50	11.37	19.24	0.01	7.14	323.04	9.94	0
6/17/2024 15:00	11.41	19.17	0.01	7.11	323	9.94	0

WLNG DS 2024-06-17 to 2024-06-24

6/17/2024 15:10	11.44	19.31	0.01	7.12	324.17	9.92	0.07
6/17/2024 15:20	11.5	19.26	0.01	7.14	322.94	9.91	0.04
6/17/2024 15:30	11.57	19.34	0.01	7.12	325.19	9.89	0.22
6/17/2024 15:40	11.65	19.28	0.01	7.11	324.96	9.89	0
6/17/2024 15:50	13.02	107.74	0.05	7.4	233.96	9.38	1.38
6/17/2024 16:00	12.53	58.07	0.03	7.36	289.6	9.56	1.42
6/17/2024 16:10	11.98	26.96	0.01	7.14	321.85	9.78	0.51
6/17/2024 16:20	11.76	21.08	0.01	7.12	322.29	9.83	0
6/17/2024 16:30	11.69	21	0.01	7.1	332.13	9.84	0
6/17/2024 16:40	11.66	19.91	0.01	7.13	333.13	9.85	0.53
6/17/2024 16:50	11.65	18.95	0.01	7.13	334.9	9.85	0
6/17/2024 17:00	11.63	19.74	0.01	7.11	333.52	9.86	0
6/17/2024 17:10	11.61	19.41	0.01	7.1	334.94	9.86	0.24
6/17/2024 17:20	11.58	19.5	0.01	7.11	328.93	9.86	0.02
6/17/2024 17:30	11.56	19.66	0.01	7.11	330.78	9.85	0
6/17/2024 17:40	11.55	19.65	0.01	7.11	330.3	9.86	0
6/17/2024 17:50	11.53	18.84	0.01	7.09	331.37	9.85	0.11
6/17/2024 18:00	11.51	19.67	0.01	7.1	329.1	9.86	0
6/17/2024 18:10	11.49	19.66	0.01	7.08	329.64	9.85	0
6/17/2024 18:20	11.47	19.75	0.01	7.11	327.11	9.86	0
6/17/2024 18:30	11.45	19.79	0.01	7.08	326.2	9.87	0
6/17/2024 18:30	11.45	19.65	0.01	7.09	328.31	9.85	0
6/17/2024 18:40	11.44	19.19	0.01	7.08	327.1	9.85	0.04
6/17/2024 18:50	11.43	19.77	0.01	7.09	325.16	9.87	0
6/17/2024 19:00	11.42	19.83	0.01	7.06	328.85	9.87	0
6/17/2024 19:10	11.4	19.85	0.01	7.06	329.24	9.86	0
6/17/2024 19:20	11.37	19.88	0.01	7.05	327.88	9.85	0.11
6/17/2024 19:30	11.35	19.25	0.01	7.07	326.49	9.86	1.34
6/17/2024 19:40	11.33	19.93	0.01	7.04	326.31	9.86	0.09
6/17/2024 19:50	11.31	19.94	0.01	7.06	326.65	9.86	0.14
6/17/2024 20:00	11.29	19.94	0.01	7.04	327.06	9.86	0
6/17/2024 20:10	11.28	20.88	0.01	7.04	328.88	9.86	0
6/17/2024 20:20	11.26	20.12	0.01	7.04	329.25	9.86	0
6/17/2024 20:30	11.25	20.85	0.01	7.03	331.12	9.86	0.82
6/17/2024 20:40	11.24	19.94	0.01	7.03	333.05	9.88	0.2
6/17/2024 20:50	11.22	20.05	0.01	7.03	333.08	9.87	0
6/17/2024 21:00	11.21	20	0.01	7.03	329.16	9.87	0
6/17/2024 21:10	11.2	19.17	0.01	7.04	331.11	9.87	0.59
6/17/2024 21:20	11.19	20.09	0.01	7.05	328.96	9.88	2.56
6/17/2024 21:30	11.17	20.97	0.01	7.02	332.36	9.88	0
6/17/2024 21:40	11.16	20.06	0.01	7.03	332.73	9.88	0
6/17/2024 21:50	11.15	19.17	0.01	7.02	333.63	9.88	0
6/17/2024 22:00	11.14	20.07	0.01	7.04	331.57	9.88	0
6/17/2024 22:10	11.13	20.21	0.01	7.02	332.84	9.89	0
6/17/2024 22:20	11.12	20.18	0.01	7.01	331.9	9.89	0.82
6/17/2024 22:30	11.11	20.21	0.01	7.03	331.31	9.89	0.47
6/17/2024 22:40	11.11	20.08	0.01	7.02	330.4	9.88	0.31

WLNG DS 2024-06-17 to 2024-06-24

6/17/2024 22:50	11.1	20.51	0.01	7.02	332.65	9.9	0.28
6/17/2024 23:00	11.09	20.11	0.01	7.02	333.83	9.89	1.56
6/17/2024 23:10	11.08	21.01	0.01	7.01	335.49	9.9	0
6/17/2024 23:20	11.08	20.12	0.01	7.02	335.72	9.91	0
6/17/2024 23:30	11.07	20.4	0.01	7.03	336.7	9.9	0
6/17/2024 23:40	11.06	20.19	0.01	7.01	338.25	9.9	0.33
6/17/2024 23:50	11.06	20.94	0.01	7.04	337.74	9.9	0
6/18/2024 0:00	11.05	20.29	0.01	7.02	339.62	9.9	0
6/18/2024 0:10	11.04	20.93	0.01	7.02	340.13	9.91	0.02
6/18/2024 0:20	11.03	20.05	0.01	7	341.73	9.91	0
6/18/2024 0:30	11.02	20.02	0.01	7.02	341.53	9.9	17.59
6/18/2024 0:40	11.02	20.18	0.01	7.03	342.27	9.91	1.13
6/18/2024 0:50	11.01	20.94	0.01	7	343.78	9.92	52.27
6/18/2024 1:00	11	20.1	0.01	7.01	344.37	9.92	0
6/18/2024 1:10	10.99	20.85	0.01	7.01	344.85	9.91	0.41
6/18/2024 1:20	10.99	20.22	0.01	7.01	345.43	9.93	2.33
6/18/2024 1:30	10.98	20.94	0.01	7.02	345.69	9.92	32.76
6/18/2024 1:30	10.98	20.94	0.01	7.02	345.69	9.92	32.76
6/18/2024 1:40	10.97	20.07	0.01	6.99	347.35	9.91	0.06
6/18/2024 1:50	10.96	21.08	0.01	7	347.88	9.92	30.16
6/18/2024 2:00	10.96	20.17	0.01	7.02	347.45	9.93	0.11
6/18/2024 2:10	10.95	20.94	0.01	6.99	349.31	9.92	44.34
6/18/2024 2:20	10.94	20.24	0.01	6.99	350.06	9.92	0.09
6/18/2024 2:30	10.94	20.08	0.01	6.99	350.46	9.92	0
6/18/2024 2:40	10.93	20.23	0.01	6.99	350.98	9.94	0
6/18/2024 2:50	10.92	21.03	0.01	6.99	351.33	9.93	0
6/18/2024 3:00	10.92	20.22	0.01	7	351.97	9.93	0
6/18/2024 3:10	10.91	20	0.01	7	352.78	9.93	0
6/18/2024 3:20	10.91	20.25	0.01	6.98	354.05	9.92	0
6/18/2024 3:30	10.9	20.9	0.01	6.99	353.74	9.94	0
6/18/2024 3:40	10.9	20.27	0.01	7	354.23	9.94	0
6/18/2024 3:50	10.89	20.05	0.01	6.99	355.18	9.93	0
6/18/2024 4:00	10.88	20.33	0.01	6.99	356.6	9.94	0
6/18/2024 4:10	10.88	20.99	0.01	6.99	356.68	9.93	0
6/18/2024 4:20	10.88	20.3	0.01	7.01	356.43	9.95	0
6/18/2024 4:30	10.87	20.81	0.01	6.99	357.59	9.94	0
6/18/2024 4:40	10.87	20.36	0.01	6.99	358.57	9.94	0
6/18/2024 4:50	10.87	20.07	0.01	6.99	358.62	9.95	1.27
6/18/2024 5:00	10.86	20.36	0.01	6.98	360.02	9.95	0
6/18/2024 5:10	10.86	20.74	0.01	6.99	359.46	9.95	0.27
6/18/2024 5:20	10.86	20.41	0.01	6.98	360.76	9.97	0
6/18/2024 5:30	10.85	20.22	0.01	7	359.91	9.95	3.66
6/18/2024 5:40	10.85	20.37	0.01	7	360.51	9.95	0
6/18/2024 5:50	10.85	21.01	0.01	6.98	361.61	9.95	0
6/18/2024 6:00	10.84	20.49	0.01	6.98	361.71	9.96	0
6/18/2024 6:10	10.84	20.21	0.01	7	360.05	9.95	0
6/18/2024 6:20	10.84	20.28	0.01	6.97	357.76	9.97	0

WLNG DS 2024-06-17 to 2024-06-24

6/18/2024 6:30	10.84	19.54	0.01	7	354.75	9.96	0.08
6/18/2024 6:40	10.84	20.35	0.01	7	346.36	9.97	0
6/18/2024 6:50	10.85	20.4	0.01	7.01	346.42	9.97	0.5
6/18/2024 7:00	10.85	20.41	0.01	7	344.98	9.97	0
6/18/2024 7:10	10.85	20.14	0.01	7.01	343.25	9.97	0
6/18/2024 7:20	10.86	20.25	0.01	7.01	334.2	9.97	0
6/18/2024 7:30	10.86	19.59	0.01	6.99	338.33	9.97	0.37
6/18/2024 7:40	10.87	20.33	0.01	7	336.28	9.98	1.23
6/18/2024 7:50	10.88	20.15	0.01	7.01	335.61	9.99	0
6/18/2024 8:00	10.89	20.23	0.01	7.02	327.72	9.98	0
6/18/2024 8:10	10.91	20.16	0.01	7.04	330.36	9.98	0
6/18/2024 8:20	10.93	20.2	0.01	7.03	325.95	9.99	0
6/18/2024 8:30	10.95	19.88	0.01	7.05	329.36	9.99	0.07
6/18/2024 8:40	10.98	19.9	0.01	7.04	328.19	9.99	0.29
6/18/2024 8:50	11	19.81	0.01	7.05	329.36	10.01	0
6/18/2024 9:00	11.03	19.9	0.01	7.06	328.07	9.99	0
6/18/2024 9:10	11.07	19.54	0.01	7.06	329.89	9.99	0
6/18/2024 9:20	11.1	19.59	0.01	7.07	327.86	10	0
6/18/2024 9:30	11.13	19.51	0.01	7.08	329.8	9.99	0
6/18/2024 9:40	11.16	19.39	0.01	7.09	328.17	9.98	0.01
6/18/2024 9:50	11.2	19.47	0.01	7.1	329.49	9.98	0.01
6/18/2024 10:00	11.24	19.36	0.01	7.09	327.94	9.98	0
6/18/2024 10:10	11.28	19.34	0.01	7.12	328.74	9.98	0
6/18/2024 10:20	11.32	19.25	0.01	7.1	329.01	9.97	0.05
6/18/2024 10:30	11.35	19	0.01	7.1	329.72	9.97	0
6/18/2024 10:40	11.37	19.18	0.01	7.1	328.42	9.95	0
6/18/2024 10:50	11.4	18.62	0.01	7.1	329.5	9.95	0
6/18/2024 11:00	11.44	19.41	0.01	7.12	327.63	9.94	0
6/18/2024 11:10	11.5	19.18	0.01	7.12	328.49	9.93	0
6/18/2024 11:20	11.55	19.26	0.01	7.13	327.32	9.93	0
6/18/2024 11:30	11.6	19.1	0.01	7.12	329.74	9.91	0
6/18/2024 11:40	11.66	19.19	0.01	7.1	328.91	9.89	0
6/18/2024 11:50	11.71	18.57	0.01	7.14	329.27	9.89	0
6/18/2024 12:00	11.79	19.13	0.01	7.14	328.69	9.87	0.09
6/18/2024 12:10	11.91	19.31	0.01	7.15	329.78	9.85	0
6/18/2024 12:20	12.01	19.28	0.01	7.14	329.78	9.83	0
6/18/2024 12:30	12.11	19.13	0.01	7.14	331.24	9.81	0.73
6/18/2024 12:40	12.15	19.24	0.01	7.14	328.22	9.8	0
6/18/2024 12:50	12.3	18.67	0.01	7.14	329.68	9.76	0
6/18/2024 13:00	12.4	19.28	0.01	7.14	327.61	9.74	0
6/18/2024 13:10	12.5	19.06	0.01	7.15	330.35	9.72	0.36
6/18/2024 13:20	12.58	19.22	0.01	7.16	330.35	9.69	0.11
6/18/2024 13:30	12.74	20.17	0.01	7.15	331.34	9.67	1.23
6/18/2024 13:40	12.9	19.47	0.01	7.16	331.07	9.63	1.9
6/18/2024 13:50	13.09	19.42	0.01	7.15	331.02	9.58	0
6/18/2024 14:00	13.27	19.38	0.01	7.15	328.96	9.54	0
6/18/2024 14:10	13.41	18.8	0.01	7.16	329.6	9.51	0

WLNG DS 2024-06-17 to 2024-06-24

6/18/2024 14:20	13.5	19.52	0.01	7.16	328.73	9.48	0.67
6/18/2024 14:30	13.58	20.34	0.01	7.13	332.17	9.47	0.54
6/18/2024 14:40	13.64	19.73	0.01	7.16	331.42	9.45	0
6/18/2024 14:50	13.69	20.33	0.01	7.14	332.47	9.44	0
6/18/2024 15:00	13.69	19.59	0.01	7.14	332.72	9.44	0.07
6/18/2024 15:10	13.68	19.78	0.01	7.15	332.56	9.43	0.13
6/18/2024 15:20	13.71	19.78	0.01	7.13	332.01	9.42	0
6/18/2024 15:30	15.67	131.23	0.06	7.34	282.76	8.67	1.08
6/18/2024 15:40	15.83	131.71	0.06	7.3	290.39	8.48	1.26
6/18/2024 15:50	14.25	34.42	0.01	7.14	309.49	9.25	0.25
6/18/2024 16:00	14.01	26.02	0.01	7.15	318.81	9.32	0.2
6/18/2024 16:10	13.86	21.46	0.01	7.12	325.06	9.36	0.34
6/18/2024 16:20	13.78	20.94	0.01	7.14	326.3	9.38	0.12
6/18/2024 16:30	13.7	20.79	0.01	7.13	330.52	9.39	3.05
6/18/2024 16:40	13.63	20.5	0.01	7.14	331.56	9.41	0.25
6/18/2024 16:50	13.54	20.28	0.01	7.13	332.36	9.41	0.08
6/18/2024 17:00	13.45	20.36	0.01	7.12	333.01	9.42	0.08
6/18/2024 17:10	13.35	20.35	0.01	7.13	334.37	9.44	0.15
6/18/2024 17:20	13.25	20	0.01	7.11	335.23	9.46	0.02
6/18/2024 17:30	13.17	20.39	0.01	7.11	335.75	9.47	0.34
6/18/2024 17:40	13.1	20.35	0.01	7.12	332.04	9.48	0.15
6/18/2024 17:50	13.01	20.05	0.01	7.1	333.86	9.51	0.15
6/18/2024 18:00	12.95	20.18	0.01	7.11	332.53	9.51	0
6/18/2024 18:10	12.9	19.31	0.01	7.1	333.55	9.52	0
6/18/2024 18:20	12.83	20.34	0.01	7.1	332.16	9.54	0
6/18/2024 18:30	12.78	21.21	0.01	7.09	333.64	9.54	0
6/18/2024 18:40	12.72	20.39	0.01	7.08	334.17	9.54	0
6/18/2024 18:50	12.67	20.28	0.01	7.08	333.3	9.55	0.01
6/18/2024 19:00	12.62	20.46	0.01	7.08	330.81	9.55	0
6/18/2024 19:10	12.57	19.81	0.01	7.09	330.62	9.56	0
6/18/2024 19:20	12.52	20.36	0.01	7.06	331.51	9.57	0.01
6/18/2024 19:30	12.48	19.44	0.01	7.07	332.35	9.58	0
6/18/2024 19:40	12.44	20.57	0.01	7.06	331.59	9.58	3.02
6/18/2024 19:50	12.41	20.4	0.01	7.07	331.22	9.58	0
6/18/2024 20:00	12.37	20.49	0.01	7.05	332.1	9.61	0
6/18/2024 20:10	12.33	19.82	0.01	7.03	333.05	9.61	0.05
6/18/2024 20:20	12.29	20.34	0.01	7.05	332.09	9.62	0
6/18/2024 20:30	12.25	19.38	0.01	7.05	332.22	9.61	0.23
6/18/2024 20:40	12.22	20.47	0.01	7.04	331.99	9.63	0
6/18/2024 20:50	12.18	20.27	0.01	7.05	331.99	9.63	0
6/18/2024 21:00	12.15	20.39	0.01	7.05	329.77	9.63	0
6/18/2024 21:10	12.12	19.82	0.01	7.06	330.86	9.65	0
6/18/2024 21:20	12.09	20.4	0.01	7.05	330.21	9.66	0
6/18/2024 21:30	12.05	20.51	0.01	7.04	331.09	9.66	0
6/18/2024 21:40	12.02	20.48	0.01	7.03	331.28	9.66	0
6/18/2024 21:50	11.99	20.03	0.01	7.05	330.91	9.67	0
6/18/2024 22:00	11.96	20.29	0.01	7.05	329.41	9.67	0

WLNG DS 2024-06-17 to 2024-06-24

6/18/2024 22:10	11.93	21.31	0.01	7.03	332.31	9.68	0
6/18/2024 22:20	11.9	20.41	0.01	7.03	332.7	9.69	0
6/18/2024 22:30	11.88	19.94	0.01	7.05	332.51	9.71	0
6/18/2024 22:40	11.85	20.25	0.01	7.02	332.83	9.7	0
6/18/2024 22:50	11.82	20.52	0.01	7.04	331.94	9.71	0.03
6/18/2024 23:00	11.79	20.46	0.01	7.04	329.42	9.72	0
6/18/2024 23:10	11.77	20.72	0.01	7.04	332.52	9.73	0.04
6/18/2024 23:20	11.74	20.23	0.01	7.01	335.08	9.74	0
6/18/2024 23:30	11.72	19.34	0.01	7.04	334.22	9.73	0
6/18/2024 23:40	11.69	20.39	0.01	7.03	331.86	9.74	0.2
6/18/2024 23:50	11.67	20.25	0.01	7.03	333.58	9.76	0
6/19/2024 0:00	11.64	20.37	0.01	7.03	333.48	9.76	0
6/19/2024 0:10	11.62	19.61	0.01	7.02	334.57	9.76	0
6/19/2024 0:20	11.59	20.17	0.01	7.01	333.79	9.77	0
6/19/2024 0:30	11.57	20.29	0.01	7.02	334.52	9.77	0
6/19/2024 0:40	11.54	20.28	0.01	7.02	333.28	9.78	0
6/19/2024 0:50	11.52	20.76	0.01	7.03	334.77	9.78	0.12
6/19/2024 1:00	11.5	20.3	0.01	7.03	335.45	9.8	0
6/19/2024 1:10	11.48	21.23	0.01	7.04	335.72	9.8	0
6/19/2024 1:20	11.46	20.3	0.01	7.02	336.85	9.8	0.21
6/19/2024 1:30	11.44	20.33	0.01	7.02	337.33	9.8	0
6/19/2024 1:40	11.41	20.28	0.01	7.03	335.87	9.81	0.26
6/19/2024 1:50	11.39	19.9	0.01	7.02	336.73	9.81	0
6/19/2024 2:00	11.37	20.28	0.01	7.03	334.89	9.82	0
6/19/2024 2:10	11.35	20.36	0.01	7.02	336.17	9.82	0
6/19/2024 2:20	11.33	20.29	0.01	7.02	334.62	9.84	0
6/19/2024 2:30	11.3	20.3	0.01	7.02	336.68	9.84	0
6/19/2024 2:40	11.28	20.31	0.01	7.01	335.76	9.85	0
6/19/2024 2:50	11.26	21.24	0.01	7.01	337.4	9.85	0
6/19/2024 3:00	11.24	20.42	0.01	7.01	338.02	9.86	0
6/19/2024 3:10	11.22	20.64	0.01	7.02	338.56	9.86	0.06
6/19/2024 3:20	11.2	20.21	0.01	7.01	339.87	9.86	1.94
6/19/2024 3:30	11.18	21.25	0.01	7.04	338.57	9.86	0
6/19/2024 3:40	11.16	20.42	0.01	7.01	340.82	9.87	0.17
6/19/2024 3:50	11.14	21.18	0.01	7.02	340.59	9.87	0.65
6/19/2024 4:00	11.11	20.33	0.01	7.04	340.83	9.88	0
6/19/2024 4:10	11.09	21.13	0.01	7.03	341	9.88	0.32
6/19/2024 4:20	11.07	20.38	0.01	7.02	342.23	9.88	0
6/19/2024 4:30	11.05	21.13	0.01	7.02	341.91	9.9	8.25
6/19/2024 4:40	11.03	20.3	0.01	7.01	343.04	9.9	0
6/19/2024 4:50	11.01	21.1	0.01	7.02	342.45	9.91	10.02
6/19/2024 5:00	10.99	20.23	0.01	7.02	343.58	9.91	0
6/19/2024 5:10	10.97	21.14	0.01	7.02	343.32	9.92	15.32
6/19/2024 5:20	10.95	20.33	0.01	7.02	343.49	9.93	0.15
6/19/2024 5:30	10.94	21.16	0.01	7.01	344.19	9.94	0.38
6/19/2024 5:40	10.92	20.22	0.01	7.03	343.66	9.93	0.16
6/19/2024 5:50	10.9	21.12	0.01	7.01	344.5	9.95	10

WLNG DS 2024-06-17 to 2024-06-24

6/19/2024 6:00	10.89	20.28	0.01	7.01	345.11	9.96	0.36
6/19/2024 6:10	10.87	20.8	0.01	7.02	344.82	9.96	0
6/19/2024 6:20	10.86	20.15	0.01	7.03	344.95	9.97	0.27
6/19/2024 6:30	10.85	20.91	0.01	7.04	344.69	9.97	0
6/19/2024 6:40	10.84	20.18	0.01	7.03	345.38	9.96	0
6/19/2024 6:50	10.84	21.02	0.01	7.04	345.13	9.98	7.15
6/19/2024 7:00	10.83	20.13	0.01	7.03	346.25	9.98	0.29
6/19/2024 7:10	10.82	20.58	0.01	7.04	345.01	9.98	14.51
6/19/2024 7:20	10.82	20.04	0.01	7.04	345.97	9.98	0.18
6/19/2024 7:30	10.82	20.82	0.01	7.03	347.24	9.99	0
6/19/2024 7:40	10.82	20.1	0.01	7.03	347.5	10	0
6/19/2024 7:50	10.83	20.79	0.01	7.04	347.06	9.99	0.17
6/19/2024 8:00	10.83	20.18	0.01	7.04	347.63	9.99	0
6/19/2024 8:10	10.86	20.81	0.01	7.04	347.85	9.99	0.17
6/19/2024 8:20	10.9	20.06	0.01	7.05	347.87	9.99	0
6/19/2024 8:30	10.94	20.23	0.01	7.04	348.31	9.98	0
6/19/2024 8:40	11.02	19.84	0.01	7.05	347.77	9.97	0
6/19/2024 8:50	11.09	20.6	0.01	7.08	345.97	9.96	0
6/19/2024 9:00	11.18	19.87	0.01	7.06	347.44	9.95	0
6/19/2024 9:10	11.28	20.68	0.01	7.08	346.85	9.92	0.01
6/19/2024 9:20	11.38	19.93	0.01	7.09	346.84	9.91	0
6/19/2024 9:30	11.48	20.66	0.01	7.08	347.52	9.89	5.65
6/19/2024 9:40	11.58	19.82	0.01	7.1	347.05	9.86	0.03
6/19/2024 9:50	11.68	20.7	0.01	7.11	346.35	9.85	0
6/19/2024 10:00	11.79	19.84	0.01	7.11	347.76	9.82	0.18
6/19/2024 10:10	11.91	19.58	0.01	7.11	346.76	9.81	0.46
6/19/2024 10:20	12.02	19.88	0.01	7.12	345.07	9.78	0.13
6/19/2024 10:30	12.14	19.04	0.01	7.12	344.58	9.75	0
6/19/2024 10:40	12.24	19.92	0.01	7.12	343.68	9.73	0.04
6/19/2024 10:50	12.36	19.73	0.01	7.12	344.51	9.71	0.16
6/19/2024 11:00	12.5	19.81	0.01	7.14	341.45	9.68	0.03
6/19/2024 11:10	12.64	19.69	0.01	7.13	342.11	9.67	0
6/19/2024 11:10	12.64	19.69	0.01	7.13	342.11	9.67	0
6/19/2024 11:20	12.78	19.84	0.01	7.12	342.88	9.64	0
6/19/2024 11:30	12.91	19.39	0.01	7.14	339.9	9.61	0
6/19/2024 11:40	13.04	19.8	0.01	7.14	338.92	9.58	0
6/19/2024 11:50	13.16	18.97	0.01	7.14	339.99	9.56	0
6/19/2024 12:00	13.29	19.95	0.01	7.15	338.7	9.53	0
6/19/2024 12:10	13.42	20.59	0.01	7.16	339.41	9.51	0
6/19/2024 12:20	13.55	19.89	0.01	7.16	340.29	9.48	0
6/19/2024 12:30	13.67	20.63	0.01	7.17	339.96	9.45	0
6/19/2024 12:40	13.79	19.92	0.01	7.18	339.99	9.41	0.12
6/19/2024 12:50	13.9	19.63	0.01	7.16	340.86	9.39	1.21
6/19/2024 13:00	14.01	19.87	0.01	7.16	340.61	9.37	0
6/19/2024 13:10	14.11	19.41	0.01	7.16	340.92	9.35	0
6/19/2024 13:20	14.2	19.9	0.01	7.17	339.65	9.34	1.15
6/19/2024 13:30	14.28	19.1	0.01	7.16	340.28	9.32	0.04

WLNG DS 2024-06-17 to 2024-06-24

6/19/2024 13:40	14.36	19.79	0.01	7.17	339.34	9.29	0
6/19/2024 13:50	16.19	114.97	0.05	7.4	262.3	8.49	0.82
6/19/2024 14:00	15.47	54.9	0.02	7.35	287.46	8.82	0.27
6/19/2024 14:10	14.93	29.56	0.01	7.2	313.81	9.13	0.1
6/19/2024 14:20	14.78	22.93	0.01	7.22	324.33	9.19	0.64
6/19/2024 14:30	14.74	22.47	0.01	7.15	334	9.2	0.02
6/19/2024 14:40	14.74	20.92	0.01	7.2	335.77	9.2	0.64
6/19/2024 14:50	14.74	21.45	0.01	7.23	335.5	9.19	0.14
6/19/2024 15:00	14.74	20.61	0.01	7.18	340.31	9.19	0.17
6/19/2024 15:10	14.75	20.47	0.01	7.17	340.97	9.2	0.05
6/19/2024 15:20	14.75	20.52	0.01	7.2	336.82	9.18	0.22
6/19/2024 15:30	14.75	21.04	0.01	7.16	340.42	9.18	0.24
6/19/2024 15:40	14.75	20.3	0.01	7.2	340.7	9.18	0
6/19/2024 15:50	14.74	20.02	0.01	7.13	343.64	9.18	0
6/19/2024 16:00	14.73	20.28	0.01	7.19	339.47	9.17	0.13
6/19/2024 16:10	14.7	19.77	0.01	7.16	341.29	9.17	0
6/19/2024 16:20	14.66	20.29	0.01	7.16	339.24	9.18	0
6/19/2024 16:30	14.6	19.61	0.01	7.15	340.44	9.19	0.36
6/19/2024 16:40	14.54	20.25	0.01	7.17	338.96	9.18	0
6/19/2024 16:50	14.47	21.2	0.01	7.19	338.63	9.2	0
6/19/2024 17:00	14.39	20.49	0.01	7.19	340.31	9.21	0
6/19/2024 17:10	14.29	21.02	0.01	7.19	339.63	9.23	0.89
6/19/2024 17:20	14.18	20.5	0.01	7.14	344.22	9.26	1.28
6/19/2024 17:30	14.09	21.42	0.01	7.17	341.87	9.26	0
6/19/2024 17:40	13.99	20.57	0.01	7.17	342.38	9.28	0.12
6/19/2024 17:50	13.9	21.37	0.01	7.16	342.22	9.29	0
6/19/2024 18:00	13.81	20.64	0.01	7.17	342.42	9.31	0.02
6/19/2024 18:10	13.74	20.61	0.01	7.11	344.12	9.31	0
6/19/2024 18:20	13.68	20.93	0.01	7.12	342.1	9.31	1.62
6/19/2024 18:30	13.61	21.02	0.01	7.1	342.56	9.33	0
6/19/2024 18:40	13.55	21.03	0.01	7.11	339.77	9.34	0
6/19/2024 18:50	13.49	20.95	0.01	7.1	339.98	9.35	0
6/19/2024 19:00	13.44	21.1	0.01	7.1	339.44	9.35	0.09
6/19/2024 19:10	13.39	20.86	0.01	7.08	339.89	9.36	0.52
6/19/2024 19:20	13.34	21.07	0.01	7.1	338.83	9.36	0
6/19/2024 19:30	13.3	21.42	0.01	7.09	338.68	9.38	0
6/19/2024 19:40	13.26	20.97	0.01	7.15	337.92	9.38	0.25
6/19/2024 19:50	13.22	20.47	0.01	7.09	340.69	9.39	0
6/19/2024 20:00	13.19	20.93	0.01	7.11	337.73	9.4	0.07
6/19/2024 20:10	13.15	21.07	0.01	7.1	339.75	9.4	0
6/19/2024 20:20	13.12	20.79	0.01	7.1	342.29	9.41	0.25
6/19/2024 20:30	13.08	20.06	0.01	7.08	342.01	9.41	0
6/19/2024 20:40	13.05	20.74	0.01	7.09	339.49	9.43	0
6/19/2024 20:50	13.02	20.64	0.01	7.13	338.35	9.42	0.85
6/19/2024 21:00	12.98	20.46	0.01	7.13	340.45	9.44	0.07
6/19/2024 21:10	12.95	21	0.01	7.08	342.5	9.44	0
6/19/2024 21:20	12.92	21	0.01	7.1	339.32	9.44	0.15

WLNG DS 2024-06-17 to 2024-06-24

6/19/2024 21:30	12.89	20.9	0.01	7.05	342.93	9.45	4.1
6/19/2024 21:40	12.86	20.93	0.01	7.1	338.72	9.45	1.25
6/19/2024 21:50	12.82	21.49	0.01	7.1	339.45	9.47	0.62
6/19/2024 22:00	12.79	20.92	0.01	7.05	344.67	9.47	0.15
6/19/2024 22:10	12.76	21.81	0.01	7.11	340.65	9.49	0
6/19/2024 22:20	12.73	20.94	0.01	7.11	342.41	9.48	0.42
6/19/2024 22:30	12.7	21.59	0.01	7.1	342.58	9.49	0.06
6/19/2024 22:40	12.67	20.84	0.01	7.11	343.48	9.5	0.75
6/19/2024 22:50	12.64	21.92	0.01	7.1	343.22	9.5	0
6/19/2024 23:00	12.61	21	0.01	7.1	345.17	9.51	0
6/19/2024 23:10	12.58	20.86	0.01	7.05	346.82	9.52	0
6/19/2024 23:20	12.56	21.02	0.01	7.08	337.15	9.53	0.42
6/19/2024 23:30	12.53	20.96	0.01	7.05	342.96	9.53	0
6/19/2024 23:40	12.5	20.95	0.01	7.07	334.95	9.54	0
6/19/2024 23:50	12.48	21.82	0.01	7.04	341.13	9.55	0.18
6/20/2024 0:00	12.45	20.93	0.01	7.06	342.82	9.56	0
6/20/2024 0:10	12.42	20.76	0.01	7.05	343.48	9.56	0
6/20/2024 0:20	12.4	20.93	0.01	7.08	341.49	9.56	0
6/20/2024 0:30	12.37	21.48	0.01	7.09	340.9	9.57	0.28
6/20/2024 0:40	12.34	20.92	0.01	7.05	344.95	9.58	0
6/20/2024 0:50	12.32	20.44	0.01	7.05	345.17	9.59	0.13
6/20/2024 1:00	12.29	20.8	0.01	7.04	343.5	9.59	0
6/20/2024 1:10	12.27	20.19	0.01	7.06	341.72	9.61	0
6/20/2024 1:20	12.24	20.73	0.01	7.04	342.54	9.6	0
6/20/2024 1:30	12.21	19.93	0.01	7.05	342.21	9.61	0
6/20/2024 1:40	12.19	20.58	0.01	7.06	340.68	9.62	0.2
6/20/2024 1:50	12.16	19.65	0.01	7.05	342.17	9.62	0
6/20/2024 2:00	12.14	20.82	0.01	7.06	339.31	9.62	0.1
6/20/2024 2:10	12.12	20.77	0.01	7.03	341.69	9.63	0
6/20/2024 2:20	12.1	20.77	0.01	7.08	338.83	9.64	0
6/20/2024 2:30	12.07	21.49	0.01	7.08	339.47	9.65	0
6/20/2024 2:40	12.05	20.89	0.01	7.07	341.84	9.65	0.03
6/20/2024 2:50	12.03	21.22	0.01	7.05	342.83	9.67	0
6/20/2024 3:00	12.01	20.8	0.01	7.04	344.62	9.66	0
6/20/2024 3:10	11.98	20.14	0.01	7.03	344.09	9.66	0
6/20/2024 3:20	11.96	20.66	0.01	7.04	341.62	9.67	0.04
6/20/2024 3:30	11.93	19.92	0.01	7.03	343.72	9.68	0
6/20/2024 3:40	11.91	20.52	0.01	7.06	339.35	9.69	0
6/20/2024 3:50	11.88	19.61	0.01	7.05	340.22	9.69	0
6/20/2024 4:00	11.86	20.76	0.01	7.03	338.89	9.68	0
6/20/2024 4:10	11.84	20.67	0.01	7.05	339.14	9.7	0
6/20/2024 4:20	11.82	20.77	0.01	7.06	338.02	9.71	0
6/20/2024 4:30	11.8	21.52	0.01	7.04	340.06	9.71	0
6/20/2024 4:40	11.78	20.74	0.01	7.07	340.8	9.72	0.87
6/20/2024 4:50	11.76	21.44	0.01	7.08	338.98	9.72	1.38
6/20/2024 5:00	11.74	20.85	0.01	7.09	340.12	9.73	1.44
6/20/2024 5:10	11.72	21.15	0.01	7.08	340.04	9.74	3.87

WLNG DS 2024-06-17 to 2024-06-24

6/20/2024 5:20	11.7	20.74	0.01	7.07	342.24	9.74	0
6/20/2024 5:30	11.68	20.87	0.01	7.08	341.75	9.75	0
6/20/2024 5:40	11.67	20.58	0.01	7.09	341.84	9.75	0
6/20/2024 5:50	11.65	20.6	0.01	7.06	343.01	9.77	0
6/20/2024 6:00	11.64	20.39	0.01	7.05	344.31	9.77	0
6/20/2024 6:10	11.63	20.16	0.01	7.08	342.69	9.78	0
6/20/2024 6:20	11.61	20.12	0.01	7.06	344.68	9.77	0
6/20/2024 6:30	11.6	21.27	0.01	7.09	343.03	9.78	0
6/20/2024 6:40	11.59	20.58	0.01	7.08	344.53	9.79	0
6/20/2024 6:50	11.59	21.11	0.01	7.1	342.96	9.8	0.54
6/20/2024 7:00	11.58	20.51	0.01	7.08	344.97	9.79	0
6/20/2024 7:10	11.58	20.86	0.01	7.1	342.97	9.8	0.74
6/20/2024 7:20	11.57	20.45	0.01	7.07	346.59	9.79	0.05
6/20/2024 7:30	11.57	20.58	0.01	7.08	345.22	9.79	0
6/20/2024 7:40	11.57	20.33	0.01	7.09	346.39	9.81	0
6/20/2024 7:50	11.57	20.38	0.01	7.1	344.86	9.81	0
6/20/2024 8:00	11.58	20.42	0.01	7.07	347.59	9.81	0
6/20/2024 8:10	11.6	20.09	0.01	7.11	345.14	9.8	0
6/20/2024 8:20	11.64	20.24	0.01	7.07	348.33	9.8	0
6/20/2024 8:30	11.69	19.85	0.01	7.11	345.64	9.8	0
6/20/2024 8:40	11.77	19.93	0.01	7.07	348.65	9.78	0.86
6/20/2024 8:50	11.84	21.11	0.01	7.08	347.36	9.77	1.52
6/20/2024 9:00	11.93	20.3	0.01	7.11	346.82	9.75	0
6/20/2024 9:10	12.03	20.82	0.01	7.13	345.83	9.74	0
6/20/2024 9:20	12.15	20.23	0.01	7.11	348.05	9.71	0.21
6/20/2024 9:30	12.25	20.76	0.01	7.1	348.76	9.7	0
6/20/2024 9:40	12.35	20.12	0.01	7.15	346.72	9.67	0
6/20/2024 9:50	12.46	20.66	0.01	7.11	348.88	9.64	0
6/20/2024 10:00	12.58	20.1	0.01	7.16	346.84	9.62	0.32
6/20/2024 10:10	12.69	20.81	0.01	7.15	347.11	9.6	0.01
6/20/2024 10:20	12.82	20.07	0.01	7.18	346.67	9.58	0
6/20/2024 10:30	12.94	20.64	0.01	7.14	348.06	9.56	0.19
6/20/2024 10:40	13.06	20.03	0.01	7.19	345.92	9.52	0
6/20/2024 10:50	13.2	20.88	0.01	7.17	346.38	9.51	0.26
6/20/2024 11:00	13.37	19.87	0.01	7.12	349.73	9.48	0.23
6/20/2024 11:10	13.51	20.71	0.01	7.1	348.95	9.46	0
6/20/2024 11:20	13.65	19.85	0.01	7.14	347.12	9.43	0.1
6/20/2024 11:30	13.76	20.11	0.01	7.12	347.78	9.41	0
6/20/2024 11:40	13.88	19.77	0.01	7.16	346.58	9.38	0
6/20/2024 11:50	14	20.46	0.01	7.15	346.86	9.37	0.36
6/20/2024 12:00	14.14	19.67	0.01	7.17	346.64	9.34	0.12
6/20/2024 12:10	14.25	20.25	0.01	7.14	347.74	9.31	0.01
6/20/2024 12:20	14.36	19.52	0.01	7.14	347.93	9.29	0.91
6/20/2024 12:30	15.96	69.69	0.03	7.45	240.81	8.83	0.29
6/20/2024 12:40	14.86	23.66	0.01	7.21	303.2	9.19	0.1
6/20/2024 12:50	14.78	21.45	0.01	7.17	325.53	9.2	0.78
6/20/2024 13:00	14.81	19.97	0.01	7.16	335.35	9.2	0.24

WLNG DS 2024-06-17 to 2024-06-24

6/20/2024 13:10	14.87	19.66	0.01	7.17	339.03	9.18	0
6/20/2024 13:20	14.95	19.68	0.01	7.19	341.06	9.17	0.41
6/20/2024 13:30	15.03	20.17	0.01	7.2	342.35	9.15	0.02
6/20/2024 13:40	15.11	19.58	0.01	7.2	343.93	9.13	0.04
6/20/2024 13:50	15.18	20.2	0.01	7.2	344.17	9.11	0.5
6/20/2024 14:00	15.25	19.59	0.01	7.23	343.96	9.09	0.27
6/20/2024 14:10	15.3	20.45	0.01	7.23	344.04	9.09	0.23
6/20/2024 14:20	15.34	19.84	0.01	7.22	345.94	9.07	0.2
6/20/2024 14:30	15.38	20.52	0.01	7.22	344.85	9.06	0
6/20/2024 14:40	15.41	19.9	0.01	7.24	344.7	9.05	0
6/20/2024 14:50	15.43	20.33	0.01	7.24	344.4	9.04	0.04
6/20/2024 15:00	15.44	19.98	0.01	7.24	344.83	9.03	0.1
6/20/2024 15:10	15.47	19.39	0.01	7.19	346.72	9.03	0.33
6/20/2024 15:20	15.49	19.92	0.01	7.19	345.71	9.03	0.03
6/20/2024 15:30	15.49	19.28	0.01	7.16	346.73	9.01	0.17
6/20/2024 15:40	15.49	19.89	0.01	7.19	343.88	9.01	0.09
6/20/2024 15:50	15.48	19.27	0.01	7.15	344.97	9.02	0.2
6/20/2024 16:00	15.46	20.05	0.01	7.16	343.32	9.01	0.39
6/20/2024 16:10	15.44	20	0.01	7.19	342.1	9.01	0.01
6/20/2024 16:20	15.41	19.95	0.01	7.19	342.91	9.02	0
6/20/2024 16:30	15.35	19.16	0.01	7.15	344.21	9.01	0.54
6/20/2024 16:40	15.28	19.9	0.01	7.18	341.68	9.03	0
6/20/2024 16:50	15.2	20.55	0.01	7.16	342.85	9.03	1.26
6/20/2024 17:00	15.09	20.67	0.01	7.17	340.53	9.06	0.36
6/20/2024 17:10	14.98	20.78	0.01	7.14	342.07	9.07	0.02
6/20/2024 17:20	14.87	20.8	0.01	7.14	341.01	9.09	0.08
6/20/2024 17:30	14.74	20.74	0.01	7.12	339.43	9.11	0.32
6/20/2024 17:40	14.66	20.89	0.01	7.12	338.3	9.11	0.03
6/20/2024 17:50	14.55	20.79	0.01	7.13	339.29	9.12	0.04
6/20/2024 18:00	14.47	20.95	0.01	7.12	336.65	9.15	0.01
6/20/2024 18:10	14.41	20.7	0.01	7.12	339.53	9.15	0.12
6/20/2024 18:20	14.36	20.94	0.01	7.11	337.68	9.16	0.06
6/20/2024 18:30	14.3	20.8	0.01	7.09	339.65	9.17	0
6/20/2024 18:40	14.24	20.98	0.01	7.11	335.5	9.19	0.15
6/20/2024 18:50	14.18	20.74	0.01	7.1	337.18	9.2	0
6/20/2024 19:00	14.13	21.1	0.01	7.09	335.95	9.19	0.17
6/20/2024 19:10	14.08	21.12	0.01	7.11	335.44	9.2	0
6/20/2024 19:20	14.03	21.18	0.01	7.1	334.47	9.2	0
6/20/2024 19:30	13.99	21.11	0.01	7.11	334.41	9.21	0
6/20/2024 19:40	13.95	21.15	0.01	7.13	328.78	9.23	0.15
6/20/2024 19:50	13.92	21.05	0.01	7.1	332.85	9.23	0
6/20/2024 20:00	13.89	21.11	0.01	7.11	331.31	9.23	0
6/20/2024 20:10	13.85	21.76	0.01	7.14	331.02	9.24	0.05
6/20/2024 20:20	13.82	21.03	0.01	7.11	333.77	9.24	0
6/20/2024 20:30	13.79	20.79	0.01	7.1	334.22	9.25	0.11
6/20/2024 20:40	13.76	21.03	0.01	7.13	328.04	9.26	3.77
6/20/2024 20:50	13.73	21.72	0.01	7.1	331.89	9.26	0

W LNG DS 2024-06-17 to 2024-06-24

6/20/2024 21:00	13.7	21.02	0.01	7.1	334.06	9.27	0.07
6/20/2024 21:10	13.67	20.84	0.01	7.1	331.24	9.27	0
6/20/2024 21:20	13.64	21.17	0.01	7.1	329.68	9.28	0
6/20/2024 21:30	13.61	20.72	0.01	7.07	332.64	9.29	0
6/20/2024 21:40	13.57	21.15	0.01	7.11	327.31	9.29	0.22
6/20/2024 21:50	13.54	20.69	0.01	7.08	330.93	9.29	0
6/20/2024 22:00	13.51	21.2	0.01	7.1	329.43	9.3	0
6/20/2024 22:10	13.48	20.89	0.01	7.08	331.17	9.31	0.04
6/20/2024 22:20	13.45	21.17	0.01	7.09	328.98	9.31	0
6/20/2024 22:30	13.42	21.7	0.01	7.08	332.05	9.32	0.31
6/20/2024 22:40	13.39	21.05	0.01	7.1	333.19	9.32	0.04
6/20/2024 22:50	13.36	20.35	0.01	7.08	333.76	9.34	0
6/20/2024 23:00	13.33	21.09	0.01	7.1	330.45	9.35	0
6/20/2024 23:10	13.3	21.78	0.01	7.1	331.43	9.35	0
6/20/2024 23:20	13.27	21.21	0.01	7.1	333.88	9.36	0
6/20/2024 23:30	13.24	20.87	0.01	7.07	334.59	9.36	0.24
6/20/2024 23:40	13.21	21.23	0.01	7.09	333.51	9.37	0.01
6/20/2024 23:50	13.19	20.76	0.01	7.07	334.37	9.37	0
6/21/2024 0:00	13.16	21.17	0.01	7.09	329.37	9.38	0
6/21/2024 0:10	13.13	21.98	0.01	7.1	332.39	9.39	0.02
6/21/2024 0:20	13.1	21.17	0.01	7.06	337.58	9.39	2.26
6/21/2024 0:30	13.07	21.08	0.01	7.07	336.35	9.4	0
6/21/2024 0:40	13.04	21.2	0.01	7.08	331.7	9.4	0
6/21/2024 0:50	13.02	21.04	0.01	7.06	335.72	9.41	0
6/21/2024 1:00	12.99	21.14	0.01	7.08	333.58	9.42	0
6/21/2024 1:10	12.96	21.8	0.01	7.08	335.34	9.43	0
6/21/2024 1:20	12.94	21.19	0.01	7.06	339.05	9.43	0.07
6/21/2024 1:30	12.91	21.05	0.01	7.05	339.05	9.43	0
6/21/2024 1:40	12.88	21.23	0.01	7.08	336.36	9.45	0.29
6/21/2024 1:50	12.85	21.09	0.01	7.06	337.16	9.45	0.29
6/21/2024 2:00	12.82	21.21	0.01	7.07	336.11	9.45	0
6/21/2024 2:10	12.79	21.84	0.01	7.1	335.63	9.46	0
6/21/2024 2:20	12.77	21.15	0.01	7.09	339.07	9.47	0
6/21/2024 2:30	12.74	20.84	0.01	7.06	339.6	9.47	0
6/21/2024 2:40	12.72	21.21	0.01	7.08	336.59	9.48	0
6/21/2024 2:50	12.69	21.14	0.01	7.06	337.61	9.48	0
6/21/2024 3:00	12.66	21.16	0.01	7.07	337.23	9.49	0
6/21/2024 3:10	12.64	21	0.01	7.06	337.71	9.49	0.01
6/21/2024 3:20	12.62	21.15	0.01	7.07	334.51	9.5	0
6/21/2024 3:30	12.59	20.99	0.01	7.05	337.06	9.51	0
6/21/2024 3:40	12.57	21.18	0.01	7.06	335.73	9.52	0
6/21/2024 3:50	12.54	21.75	0.01	7.1	334.69	9.52	0.75
6/21/2024 4:00	12.52	21.12	0.01	7.1	336.83	9.52	0
6/21/2024 4:10	12.49	21.03	0.01	7.06	336.72	9.53	0
6/21/2024 4:20	12.47	21.08	0.01	7.08	331.74	9.53	1.52
6/21/2024 4:30	12.45	20.96	0.01	7.06	336	9.55	0.01
6/21/2024 4:40	12.43	21.07	0.01	7.07	335.39	9.55	0.39

WLNG DS 2024-06-17 to 2024-06-24

6/21/2024 4:50	12.41	21.51	0.01	7.02	339.31	9.55	0
6/21/2024 5:00	12.38	21.08	0.01	7.04	344.45	9.56	0.13
6/21/2024 5:10	12.36	20.67	0.01	7.06	339.6	9.56	0.04
6/21/2024 5:20	12.34	21.05	0.01	7.08	337.04	9.58	0
6/21/2024 5:30	12.32	20.49	0.01	7.07	337.13	9.57	0.03
6/21/2024 5:40	12.3	20.98	0.01	7.08	335.89	9.59	0.86
6/21/2024 5:50	12.28	21.19	0.01	7.07	336.17	9.59	1.92
6/21/2024 6:00	12.26	20.89	0.01	7.1	337.18	9.59	0
6/21/2024 6:10	12.24	21.4	0.01	7.08	338.44	9.6	0
6/21/2024 6:20	12.22	20.75	0.01	7.1	338.82	9.6	0
6/21/2024 6:30	12.21	19.94	0.01	7.05	341.01	9.62	0
6/21/2024 6:40	12.2	20.69	0.01	7.06	338.7	9.62	0
6/21/2024 6:50	12.19	19.81	0.01	7.06	338.98	9.63	0
6/21/2024 7:00	12.17	20.58	0.01	7.09	336.2	9.64	0.1
6/21/2024 7:10	12.16	19.7	0.01	7.07	337.6	9.63	0
6/21/2024 7:20	12.15	20.46	0.01	7.09	335.4	9.64	0
6/21/2024 7:30	12.15	20.92	0.01	7.07	337.66	9.64	0.04
6/21/2024 7:40	12.14	20.88	0.01	7.08	335.35	9.64	0.3
6/21/2024 7:50	12.14	20.85	0.01	7.08	337	9.64	0
6/21/2024 8:00	12.14	20.89	0.01	7.1	334.43	9.64	0
6/21/2024 8:10	12.16	21.56	0.01	7.12	335.63	9.64	0
6/21/2024 8:20	12.2	20.8	0.01	7.13	337.63	9.64	0
6/21/2024 8:30	12.24	21.35	0.01	7.11	338.81	9.63	1.81
6/21/2024 8:40	12.32	20.54	0.01	7.07	342.51	9.62	0
6/21/2024 8:50	12.4	20.79	0.01	7.07	342.8	9.61	0.09
6/21/2024 9:00	12.48	20.26	0.01	7.06	343.69	9.61	0
6/21/2024 9:10	12.58	20.3	0.01	7.08	344.06	9.58	0
6/21/2024 9:20	12.68	19.88	0.01	7.11	342.84	9.58	0
6/21/2024 9:30	12.78	21.09	0.01	7.09	345.89	9.55	0
6/21/2024 9:40	12.88	20.21	0.01	7.1	346.22	9.53	0
6/21/2024 9:50	12.98	21	0.01	7.12	345.41	9.5	0.34
6/21/2024 10:00	14.47	71.07	0.03	7.43	275.6	8.89	1.18
6/21/2024 10:10	15.39	67.88	0.03	7.48	284.89	8.71	3.15
6/21/2024 10:20	13.82	26.69	0.01	7.24	309.14	9.32	0.44
6/21/2024 10:30	13.71	22.97	0.01	7.18	322.45	9.36	0.68
6/21/2024 10:40	13.7	21.18	0.01	7.18	329.59	9.36	0.09
6/21/2024 10:50	13.77	21.7	0.01	7.19	332.48	9.36	0.16
6/21/2024 11:00	13.88	20.59	0.01	7.19	335.11	9.32	0.09
6/21/2024 11:10	14.01	21.3	0.01	7.2	335.05	9.32	0
6/21/2024 11:20	14.14	20.38	0.01	7.2	336.48	9.29	0.41
6/21/2024 11:30	15.91	55.91	0.03	7.42	318.71	8.83	0.37
6/21/2024 11:40	16.28	58.61	0.03	7.45	310.51	8.76	1.84
6/21/2024 11:50	16.43	60.77	0.03	7.45	305.64	8.71	3.88
6/21/2024 12:00	16.57	58.45	0.03	7.44	302.22	8.64	1.6
6/21/2024 12:10	16.67	59.9	0.03	7.46	300.01	8.62	0.52
6/21/2024 12:20	17.04	63.33	0.03	7.47	297.92	8.49	0.21
6/21/2024 12:30	17.16	64.83	0.03	7.45	296.68	8.47	45.53

WLNG DS 2024-06-17 to 2024-06-24

6/21/2024 12:40	17.23	61.17	0.03	7.44	296.74	8.46	0.21
6/21/2024 12:50	17.44	64.65	0.03	7.46	295.21	8.39	0.95
6/21/2024 13:00	16.18	29.56	0.01	7.27	303.36	8.85	0.16
6/21/2024 13:10	15.9	24.03	0.01	7.18	316.47	8.94	0.14
6/21/2024 13:20	17.5	56.14	0.03	7.47	302.26	8.47	0.67
6/21/2024 13:30	17.47	57.32	0.03	7.45	300.19	8.52	0.44
6/21/2024 13:40	17.47	53	0.02	7.45	299.12	8.51	0.26
6/21/2024 13:50	17.73	59.86	0.03	7.45	298.78	8.42	6.46
6/21/2024 14:00	17.83	58.14	0.03	7.45	298.72	8.37	0.23
6/21/2024 14:10	17.94	65.02	0.03	7.42	300.12	8.36	0.43
6/21/2024 14:20	16.61	28.28	0.01	7.26	308.11	8.76	0.13
6/21/2024 14:30	16.33	23.95	0.01	7.22	318.59	8.83	0
6/21/2024 14:40	17.75	54.81	0.02	7.49	308.2	8.37	0.41
6/21/2024 14:50	17.83	58.72	0.03	7.49	302.74	8.45	1.05
6/21/2024 15:00	16.69	29.81	0.01	7.28	308.93	8.73	0.12
6/21/2024 15:10	16.29	24.61	0.01	7.2	319.68	8.84	8.9
6/21/2024 15:20	17.53	52.5	0.02	7.51	304.9	8.51	0.04
6/21/2024 15:30	16.8	33.77	0.01	7.35	305.88	8.67	0.68
6/21/2024 15:40	17.73	57.48	0.03	7.49	306.81	8.47	0.24
6/21/2024 15:50	18.03	65.36	0.03	7.49	300.74	8.4	15.33
6/21/2024 16:00	16.95	35.02	0.02	7.36	301.8	8.65	0.3
6/21/2024 16:10	16.33	26.03	0.01	7.23	315.19	8.81	0.69
6/21/2024 16:20	17.35	52.96	0.02	7.46	315.94	8.52	0.16
6/21/2024 16:30	17.81	63.78	0.03	7.5	305.31	8.46	0.28
6/21/2024 16:40	16.69	33.41	0.01	7.33	305.09	8.69	0.11
6/21/2024 16:50	16.14	25.77	0.01	7.21	316.87	8.83	0.18
6/21/2024 17:00	15.88	22.87	0.01	7.21	322.89	8.88	1.39
6/21/2024 17:10	15.7	22.84	0.01	7.18	329.63	8.89	0
6/21/2024 17:20	15.55	21.84	0.01	7.18	333.26	8.92	0.02
6/21/2024 17:30	15.41	22.31	0.01	7.16	336.88	8.95	10.23
6/21/2024 17:40	15.29	21.66	0.01	7.16	338.88	8.96	0
6/21/2024 17:50	15.17	22.44	0.01	7.16	340.65	8.98	0.73
6/21/2024 18:00	15.07	21.73	0.01	7.14	343.3	9	0.02
6/21/2024 18:10	14.99	22.33	0.01	7.14	343.84	9	0
6/21/2024 18:20	14.91	21.69	0.01	7.14	344.47	9.02	0
6/21/2024 18:30	14.84	22.56	0.01	7.14	344.22	9.03	0.77
6/21/2024 18:40	14.78	21.69	0.01	7.18	342.62	9.03	0
6/21/2024 18:50	14.73	22.56	0.01	7.12	345.56	9.04	0
6/21/2024 19:00	14.68	21.65	0.01	7.13	345.3	9.05	0.13
6/21/2024 19:10	14.65	22.53	0.01	7.15	344.53	9.06	0
6/21/2024 19:20	14.61	21.62	0.01	7.13	346.43	9.07	0
6/21/2024 19:30	14.57	22.48	0.01	7.13	346.65	9.08	0.48
6/21/2024 19:40	14.53	21.7	0.01	7.14	346.8	9.07	0.08
6/21/2024 19:50	14.5	22.54	0.01	7.14	347.52	9.08	0
6/21/2024 20:00	14.47	21.69	0.01	7.14	346.64	9.08	0
6/21/2024 20:10	14.44	22.55	0.01	7.13	347.65	9.08	0.88
6/21/2024 20:20	14.41	21.71	0.01	7.12	348.68	9.09	2.11

WLNG DS 2024-06-17 to 2024-06-24

6/21/2024 20:30	14.38	21.72	0.01	7.11	349.25	9.11	0.15
6/21/2024 20:40	14.35	21.74	0.01	7.11	347.97	9.1	0
6/21/2024 20:50	14.32	21.61	0.01	7.11	348.44	9.1	0
6/21/2024 21:00	14.28	21.74	0.01	7.09	349.84	9.1	0
6/21/2024 21:10	14.25	21.63	0.01	7.12	348.13	9.11	0.01
6/21/2024 21:20	14.21	21.83	0.01	7.11	348.26	9.12	0
6/21/2024 21:30	14.18	21.77	0.01	7.1	348.43	9.11	0
6/21/2024 21:40	14.14	21.83	0.01	7.12	346.05	9.13	0.08
6/21/2024 21:50	14.11	21.78	0.01	7.1	347.17	9.13	0
6/21/2024 22:00	14.08	21.85	0.01	7.12	345.94	9.13	0
6/21/2024 22:10	14.05	21.74	0.01	7.1	346.74	9.14	0.5
6/21/2024 22:20	14.01	21.78	0.01	7.13	343.92	9.15	0
6/21/2024 22:30	13.99	21.76	0.01	7.1	345.61	9.15	0
6/21/2024 22:40	13.96	21.79	0.01	7.12	344.72	9.17	0
6/21/2024 22:50	13.94	21.72	0.01	7.09	346.62	9.17	0
6/21/2024 23:00	13.91	21.73	0.01	7.12	341.53	9.18	0
6/21/2024 23:10	13.88	22.54	0.01	7.12	343.96	9.18	0
6/21/2024 23:20	13.86	21.7	0.01	7.11	345.6	9.18	0.35
6/21/2024 23:30	13.83	21.44	0.01	7.09	346.55	9.19	0
6/21/2024 23:40	13.8	21.62	0.01	7.11	344.52	9.19	0.35
6/21/2024 23:50	13.77	21.69	0.01	7.09	345.73	9.2	0
6/22/2024 0:00	13.74	21.67	0.01	7.1	344.89	9.19	0
6/22/2024 0:10	13.72	21.62	0.01	7.08	346.46	9.2	0.07
6/22/2024 0:20	13.69	21.62	0.01	7.12	341.9	9.21	0.17
6/22/2024 0:30	13.67	21.54	0.01	7.1	343.38	9.22	0
6/22/2024 0:40	13.65	21.63	0.01	7.1	342.24	9.23	0
6/22/2024 0:50	13.63	22.37	0.01	7.1	344.25	9.23	0
6/22/2024 1:00	13.61	21.58	0.01	7.08	346.46	9.22	0
6/22/2024 1:10	13.59	21.38	0.01	7.09	346.09	9.24	0
6/22/2024 1:20	13.58	21.62	0.01	7.1	345.53	9.23	0
6/22/2024 1:30	13.56	21.44	0.01	7.08	346.46	9.25	0
6/22/2024 1:40	13.55	21.69	0.01	7.1	344.65	9.25	0
6/22/2024 1:50	13.53	21.39	0.01	7.07	346.75	9.24	0
6/22/2024 2:00	13.52	21.67	0.01	7.09	345.58	9.25	0
6/22/2024 2:10	13.5	21.37	0.01	7.08	346.4	9.24	0
6/22/2024 2:20	13.48	21.7	0.01	7.11	339.87	9.26	0
6/22/2024 2:30	13.47	21.33	0.01	7.08	342.16	9.27	0
6/22/2024 2:40	13.46	21.7	0.01	7.09	337.91	9.25	0
6/22/2024 2:50	13.44	21.27	0.01	7.06	342.69	9.28	0.04
6/22/2024 3:00	13.43	21.7	0.01	7.09	337.07	9.27	0
6/22/2024 3:10	13.41	21.78	0.01	7.08	341.42	9.28	0.01
6/22/2024 3:20	13.39	21.8	0.01	7.1	338.84	9.29	0.28
6/22/2024 3:30	13.38	21.75	0.01	7.07	341.52	9.29	0
6/22/2024 3:40	13.37	21.78	0.01	7.1	341.11	9.29	0
6/22/2024 3:50	13.35	22.54	0.01	7.13	340.08	9.29	0
6/22/2024 4:00	13.34	21.68	0.01	7.1	343.06	9.29	0
6/22/2024 4:10	13.33	22.52	0.01	7.1	343.32	9.3	0

WLNG DS 2024-06-17 to 2024-06-24

6/22/2024 4:20	13.32	21.62	0.01	7.11	343.85	9.29	0
6/22/2024 4:30	13.31	21.64	0.01	7.07	344.96	9.3	0
6/22/2024 4:40	13.3	21.71	0.01	7.08	344.41	9.29	0
6/22/2024 4:50	13.29	21.71	0.01	7.07	344.73	9.3	0
6/22/2024 5:00	13.28	21.74	0.01	7.07	343.92	9.3	0
6/22/2024 5:10	13.27	21.68	0.01	7.07	343.93	9.31	0.27
6/22/2024 5:20	13.26	21.74	0.01	7.07	343.9	9.31	0
6/22/2024 5:30	13.25	21.6	0.01	7.06	343.69	9.31	0
6/22/2024 5:40	13.24	21.72	0.01	7.09	341.82	9.31	0
6/22/2024 5:50	13.23	22.53	0.01	7.08	343.37	9.32	0
6/22/2024 6:00	13.22	21.67	0.01	7.07	345.69	9.32	0
6/22/2024 6:10	13.21	21.57	0.01	7.08	344.53	9.33	0.26
6/22/2024 6:20	13.2	21.67	0.01	7.1	341.41	9.34	0
6/22/2024 6:30	13.2	21.54	0.01	7.08	343.37	9.34	0
6/22/2024 6:40	13.2	21.57	0.01	7.1	341.62	9.33	0
6/22/2024 6:50	13.21	21.46	0.01	7.09	342.07	9.35	0
6/22/2024 7:00	13.22	21.47	0.01	7.11	338.83	9.35	0
6/22/2024 7:10	13.22	21.94	0.01	7.13	339.65	9.35	0
6/22/2024 7:20	13.24	21.29	0.01	7.13	341.55	9.36	0
6/22/2024 7:30	13.25	22	0.01	7.13	342.16	9.36	0.08
6/22/2024 7:40	13.26	21.22	0.01	7.11	345.14	9.36	0
6/22/2024 7:50	13.27	21.86	0.01	7.15	342.38	9.37	0
6/22/2024 8:00	13.29	21.1	0.01	7.12	345.07	9.36	0
6/22/2024 8:10	13.31	21.8	0.01	7.13	344.53	9.36	0
6/22/2024 8:20	13.33	21.04	0.01	7.13	345.63	9.35	0
6/22/2024 8:30	13.35	21.7	0.01	7.13	344.74	9.35	0
6/22/2024 8:40	13.38	21.07	0.01	7.13	346.3	9.36	0
6/22/2024 8:50	14.88	61.6	0.03	7.41	309.81	8.85	0.75
6/22/2024 9:00	15.47	61.17	0.03	7.38	306.38	8.71	0.47
6/22/2024 9:10	14.31	32.12	0.01	7.24	309.55	9.1	0.04
6/22/2024 9:20	13.94	25.48	0.01	7.16	322.47	9.23	0.03
6/22/2024 9:30	15.77	69.18	0.03	7.38	314.72	8.53	2.82
6/22/2024 9:40	15.3	54.51	0.02	7.38	304.51	8.87	0.81
6/22/2024 9:50	15.52	58.04	0.03	7.36	304.08	8.76	0.43
6/22/2024 10:00	15.58	58.86	0.03	7.38	300.88	8.72	0.33
6/22/2024 10:10	15.48	57.94	0.03	7.37	300.41	8.75	0.11
6/22/2024 10:20	15.58	57.75	0.03	7.35	301.02	8.69	1.82
6/22/2024 10:30	14.89	35.8	0.02	7.3	299.44	8.94	0.43
6/22/2024 10:40	14.28	25.96	0.01	7.19	311.1	9.18	0.05
6/22/2024 10:50	14.09	22.8	0.01	7.15	316.99	9.25	0.05
6/22/2024 11:00	14.04	22.16	0.01	7.18	322.87	9.26	0.23
6/22/2024 11:10	15.37	53.79	0.02	7.41	316.01	8.75	0.16
6/22/2024 11:20	15.88	58.34	0.03	7.45	295.74	8.72	0.31
6/22/2024 11:30	16.04	58.93	0.03	7.41	297.27	8.66	0.42
6/22/2024 11:40	16	57.68	0.03	7.42	291.5	8.65	0.6
6/22/2024 11:50	16.1	59.26	0.03	7.42	292.75	8.58	0.81
6/22/2024 12:00	16.41	69.77	0.03	7.43	292.36	8.48	0.68

WLNG DS 2024-06-17 to 2024-06-24

6/22/2024 12:10	14.73	29.21	0.01	7.22	304.62	9.07	0.43
6/22/2024 12:20	14.39	24.92	0.01	7.2	312.96	9.16	0.25
6/22/2024 12:30	14.17	23.88	0.01	7.19	320.05	9.2	0.29
6/22/2024 12:40	14.05	22.37	0.01	7.16	326.32	9.21	0.76
6/22/2024 12:50	13.97	22.77	0.01	7.17	329.14	9.23	2.72
6/22/2024 12:50	13.97	22.77	0.01	7.17	329.14	9.23	2.72
6/22/2024 13:00	15.04	50.09	0.02	7.39	322.4	8.87	0.32
6/22/2024 13:10	15.69	62.49	0.03	7.42	306.79	8.67	2
6/22/2024 13:20	16.04	63.44	0.03	7.45	298.95	8.54	1.68
6/22/2024 13:30	16.19	66.45	0.03	7.43	296.28	8.49	0.19
6/22/2024 13:40	16.16	61.73	0.03	7.41	296.25	8.53	1.97
6/22/2024 13:50	16.32	67	0.03	7.47	291.19	8.46	1.39
6/22/2024 14:00	15.4	38.41	0.02	7.36	294.19	8.81	0.59
6/22/2024 14:10	14.69	26.45	0.01	7.19	309.58	9.08	0.37
6/22/2024 14:20	14.43	23.45	0.01	7.18	316.17	9.15	0.16
6/22/2024 14:30	14.27	22.41	0.01	7.17	322.6	9.18	0.06
6/22/2024 14:40	15.03	63.14	0.03	7.25	327.23	9.02	0.33
6/22/2024 14:50	15.63	50.49	0.02	7.43	302.71	8.74	0.19
6/22/2024 15:00	15.74	52.12	0.02	7.44	297.8	8.72	1.59
6/22/2024 15:10	15.69	50.43	0.02	7.42	295.77	8.73	0.31
6/22/2024 15:20	15.74	51.28	0.02	7.43	292.75	8.7	0.04
6/22/2024 15:30	14.65	27.21	0.01	7.23	304.54	9.08	0.01
6/22/2024 15:40	14.39	23.59	0.01	7.2	312.15	9.17	0.37
6/22/2024 15:50	14.27	22.37	0.01	7.18	318.83	9.2	0.14
6/22/2024 16:00	14.18	21.92	0.01	7.19	320.3	9.22	0.07
6/22/2024 16:10	14.13	21.39	0.01	7.18	324.92	9.23	0.07
6/22/2024 16:20	14.08	21.37	0.01	7.18	325.94	9.22	0.29
6/22/2024 16:30	14.04	21.26	0.01	7.16	328.27	9.24	0.34
6/22/2024 16:40	13.99	21.34	0.01	7.16	328.5	9.24	0.05
6/22/2024 16:50	13.95	21.23	0.01	7.16	330.65	9.25	0.5
6/22/2024 17:00	13.91	21.42	0.01	7.18	330.03	9.24	0.09
6/22/2024 17:10	13.89	21.15	0.01	7.16	330.74	9.25	0
6/22/2024 17:20	13.86	21.32	0.01	7.16	332.09	9.26	0.16
6/22/2024 17:30	13.84	21.14	0.01	7.15	334.11	9.26	0
6/22/2024 17:40	13.82	21.27	0.01	7.17	331.84	9.26	2.58
6/22/2024 17:50	13.8	21.21	0.01	7.14	334.5	9.25	1
6/22/2024 18:00	13.78	21.25	0.01	7.17	332.48	9.26	0.12
6/22/2024 18:10	13.77	21.16	0.01	7.14	334.76	9.27	0.09
6/22/2024 18:20	13.75	21.24	0.01	7.17	332.87	9.26	0
6/22/2024 18:30	13.74	21.92	0.01	7.18	333.92	9.28	0.28
6/22/2024 18:40	13.73	21.14	0.01	7.15	337.85	9.27	0.05
6/22/2024 18:50	13.72	20.93	0.01	7.15	336.09	9.28	0.07
6/22/2024 19:00	13.71	21.1	0.01	7.16	334.85	9.28	0
6/22/2024 19:10	13.69	21.21	0.01	7.12	335.96	9.27	0
6/22/2024 19:20	13.68	21.28	0.01	7.14	333.2	9.27	0
6/22/2024 19:30	13.66	21.21	0.01	7.13	334.05	9.26	0
6/22/2024 19:40	13.64	21.31	0.01	7.15	332.12	9.26	0

WLNG DS 2024-06-17 to 2024-06-24

6/22/2024 19:50	13.62	22.03	0.01	7.13	334.7	9.26	0.55
6/22/2024 20:00	13.61	21.33	0.01	7.11	338.09	9.27	0.14
6/22/2024 20:10	13.59	21.2	0.01	7.11	336.54	9.27	0
6/22/2024 20:20	13.57	21.41	0.01	7.13	333.76	9.26	0
6/22/2024 20:30	13.55	21.18	0.01	7.11	335.17	9.27	0
6/22/2024 20:40	13.53	21.47	0.01	7.13	333.48	9.26	0
6/22/2024 20:50	13.51	22.42	0.01	7.14	334.02	9.26	0.06
6/22/2024 21:00	13.49	21.53	0.01	7.14	335.78	9.26	0
6/22/2024 21:10	13.46	21.63	0.01	7.11	335.87	9.27	0.41
6/22/2024 21:20	13.44	21.65	0.01	7.13	333.72	9.27	0.01
6/22/2024 21:30	13.41	21.69	0.01	7.1	334.46	9.27	0.2
6/22/2024 21:40	13.39	21.62	0.01	7.13	331.51	9.27	0
6/22/2024 21:50	13.37	22.46	0.01	7.11	333.96	9.27	0
6/22/2024 22:00	13.34	21.56	0.01	7.1	337.05	9.28	0.83
6/22/2024 22:10	13.32	22.39	0.01	7.11	335.17	9.28	0
6/22/2024 22:20	13.3	21.58	0.01	7.1	337.61	9.29	0
6/22/2024 22:30	13.27	22.35	0.01	7.11	335.7	9.29	0
6/22/2024 22:40	13.25	21.6	0.01	7.11	337.25	9.29	0
6/22/2024 22:50	13.23	22.33	0.01	7.11	336.27	9.3	0.02
6/22/2024 23:00	13.21	21.49	0.01	7.1	338.3	9.3	1.59
6/22/2024 23:10	13.2	22.21	0.01	7.12	335.87	9.32	0.92
6/22/2024 23:20	13.18	21.42	0.01	7.09	338.92	9.31	0
6/22/2024 23:30	13.16	22.33	0.01	7.12	336.03	9.31	0.11
6/22/2024 23:40	13.15	21.64	0.01	7.1	339.32	9.32	0.96
6/22/2024 23:50	13.14	22.23	0.01	7.1	337.81	9.31	0.02
6/23/2024 0:00	13.12	21.65	0.01	7.09	340.09	9.31	0
6/23/2024 0:10	13.1	22.57	0.01	7.11	338.17	9.32	1.24
6/23/2024 0:20	13.09	21.72	0.01	7.09	341.31	9.33	0
6/23/2024 0:30	13.07	21.58	0.01	7.07	340.79	9.34	0
6/23/2024 0:40	13.05	21.65	0.01	7.09	338.5	9.34	0
6/23/2024 0:50	13.04	21.58	0.01	7.07	340.21	9.34	0
6/23/2024 1:00	13.03	21.71	0.01	7.1	338.88	9.34	0
6/23/2024 1:10	13.01	21.48	0.01	7.08	338.95	9.35	0
6/23/2024 1:20	13	21.67	0.01	7.1	338.16	9.34	0
6/23/2024 1:30	12.99	21.72	0.01	7.08	339.08	9.35	0.36
6/23/2024 1:40	12.97	21.67	0.01	7.09	337.4	9.35	0
6/23/2024 1:50	12.96	22.48	0.01	7.1	337.67	9.35	0.44
6/23/2024 2:00	12.95	21.6	0.01	7.11	339.53	9.36	0
6/23/2024 2:10	12.93	22.44	0.01	7.11	338.06	9.37	0
6/23/2024 2:20	12.91	21.52	0.01	7.1	340.63	9.37	0.02
6/23/2024 2:30	12.89	22.21	0.01	7.08	340.85	9.37	0.32
6/23/2024 2:40	12.87	21.49	0.01	7.12	340.37	9.38	0.14
6/23/2024 2:50	12.86	21.44	0.01	7.09	340.93	9.39	0.07
6/23/2024 3:00	12.84	21.55	0.01	7.1	339.11	9.38	0
6/23/2024 3:10	12.82	21.3	0.01	7.08	340.56	9.39	0.11
6/23/2024 3:20	12.8	21.48	0.01	7.11	338.45	9.39	0
6/23/2024 3:30	12.79	21.54	0.01	7.08	340.08	9.4	0

WLNG DS 2024-06-17 to 2024-06-24

6/23/2024 3:40	12.77	21.48	0.01	7.1	337.96	9.4	0
6/23/2024 3:50	12.76	21.56	0.01	7.08	339.76	9.42	0
6/23/2024 4:00	12.75	21.46	0.01	7.1	338.24	9.41	0.42
6/23/2024 4:10	12.74	21.53	0.01	7.08	340.28	9.41	0
6/23/2024 4:20	12.73	21.5	0.01	7.1	337.13	9.42	0
6/23/2024 4:30	12.72	21.49	0.01	7.08	340.15	9.42	0.01
6/23/2024 4:40	12.72	21.49	0.01	7.09	338.46	9.42	0
6/23/2024 4:50	12.71	21.36	0.01	7.08	339.82	9.43	0
6/23/2024 5:00	12.71	21.47	0.01	7.09	339.3	9.42	0
6/23/2024 5:10	12.7	21.33	0.01	7.07	341.23	9.43	0.38
6/23/2024 5:20	12.7	21.5	0.01	7.09	335.06	9.42	0
6/23/2024 5:30	12.69	21.52	0.01	7.08	338.67	9.43	0
6/23/2024 5:40	12.68	21.46	0.01	7.1	337.32	9.43	0
6/23/2024 5:50	12.68	22.24	0.01	7.11	337.58	9.45	0
6/23/2024 6:00	12.67	21.35	0.01	7.12	339.44	9.45	1.27
6/23/2024 6:10	12.67	22.12	0.01	7.11	338.95	9.45	0.13
6/23/2024 6:20	12.67	21.22	0.01	7.11	341.52	9.45	0
6/23/2024 6:30	12.66	22.04	0.01	7.13	339.28	9.46	0.17
6/23/2024 6:40	12.66	21.16	0.01	7.13	340.06	9.47	0
6/23/2024 6:50	12.67	21	0.01	7.1	339.79	9.47	0
6/23/2024 7:00	12.67	21.13	0.01	7.11	338.68	9.47	0
6/23/2024 7:10	12.67	21.97	0.01	7.12	340.72	9.46	0.67
6/23/2024 7:20	12.67	21.03	0.01	7.1	344.08	9.47	0
6/23/2024 7:30	12.67	21.92	0.01	7.13	343.46	9.48	0
6/23/2024 7:40	12.67	21.02	0.01	7.12	345.85	9.48	0
6/23/2024 7:50	12.69	21.84	0.01	7.13	344.46	9.48	0.25
6/23/2024 8:00	12.69	20.95	0.01	7.1	347.03	9.48	0.09
6/23/2024 8:10	12.69	21.72	0.01	7.14	345.56	9.48	7.28
6/23/2024 8:20	12.71	20.83	0.01	7.13	345.57	9.49	0
6/23/2024 8:30	12.72	21.68	0.01	7.13	344.27	9.49	0.13
6/23/2024 8:40	12.72	20.83	0.01	7.12	346.5	9.5	0
6/23/2024 8:50	12.73	21.54	0.01	7.14	345.35	9.5	0.6
6/23/2024 9:00	12.73	20.71	0.01	7.14	346.05	9.5	0.19
6/23/2024 9:10	12.74	21.55	0.01	7.16	345.66	9.5	0.07
6/23/2024 9:20	12.75	20.77	0.01	7.14	347.1	9.51	0.05
6/23/2024 9:30	12.76	21.41	0.01	7.14	347.19	9.5	6.22
6/23/2024 9:40	12.76	20.7	0.01	7.16	346.59	9.5	0.14
6/23/2024 9:50	12.76	20.52	0.01	7.13	346.21	9.51	2.5
6/23/2024 10:00	12.76	20.73	0.01	7.15	344.06	9.5	0.16
6/23/2024 10:10	13.19	41.37	0.02	7.4	303.98	9.16	0.28
6/23/2024 10:20	13.97	47.42	0.02	7.39	305.17	9.12	1.54
6/23/2024 10:30	14.12	48.34	0.02	7.4	303.92	9.09	0.38
6/23/2024 10:40	14.15	47.62	0.02	7.37	303.88	9.09	0.19
6/23/2024 10:50	14.24	48.9	0.02	7.38	303.75	9.04	0.2
6/23/2024 11:00	14.29	47.56	0.02	7.38	302.74	9.03	0.19
6/23/2024 11:10	14.28	48.85	0.02	7.41	302.05	9.03	0.19
6/23/2024 11:20	13.5	26.75	0.01	7.26	310.18	9.35	0.23

WLNG DS 2024-06-17 to 2024-06-24

6/23/2024 11:30	13.26	23.62	0.01	7.19	322.94	9.44	0.11
6/23/2024 11:40	14.23	47.74	0.02	7.41	312.92	9.02	1.86
6/23/2024 11:50	14.4	50.75	0.02	7.39	307.99	9.03	0.36
6/23/2024 12:00	14.45	49.08	0.02	7.41	302.01	9	0.21
6/23/2024 12:10	14.44	50.23	0.02	7.41	299.8	9	0.15
6/23/2024 12:20	13.51	26.68	0.01	7.24	308.84	9.33	0.16
6/23/2024 12:30	13.26	24.01	0.01	7.18	321.33	9.43	0.04
6/23/2024 12:40	13.11	21.86	0.01	7.16	328.29	9.47	0.15
6/23/2024 12:50	13.04	21.35	0.01	7.17	328.96	9.49	0.15
6/23/2024 13:00	13.03	21.29	0.01	7.19	330.95	9.5	0.63
6/23/2024 13:10	13.02	21.18	0.01	7.18	334.04	9.49	0.2
6/23/2024 13:20	13.03	21.07	0.01	7.18	333.35	9.5	0.09
6/23/2024 13:30	13.07	20.92	0.01	7.17	335.8	9.49	0.29
6/23/2024 13:40	13.09	20.83	0.01	7.19	331.97	9.49	0.24
6/23/2024 13:50	13.11	20.8	0.01	7.17	336.08	9.5	0.11
6/23/2024 14:00	13.14	20.77	0.01	7.19	331.89	9.48	0.08
6/23/2024 14:10	13.21	20.71	0.01	7.18	335.5	9.48	0.07
6/23/2024 14:20	13.24	20.8	0.01	7.18	336.26	9.46	0.26
6/23/2024 14:30	13.24	20.71	0.01	7.19	338.14	9.47	0.01
6/23/2024 14:40	13.24	20.77	0.01	7.2	334.63	9.45	0.14
6/23/2024 14:50	13.23	21.43	0.01	7.19	338.36	9.46	0.07
6/23/2024 15:00	13.2	20.76	0.01	7.2	341.16	9.45	0.35
6/23/2024 15:10	13.18	20.75	0.01	7.17	343.9	9.46	0.35
6/23/2024 15:20	13.17	20.87	0.01	7.19	342.85	9.46	0
6/23/2024 15:30	13.19	21.56	0.01	7.18	345.34	9.46	0
6/23/2024 15:40	13.21	20.7	0.01	7.18	346.3	9.47	0.13
6/23/2024 15:50	13.24	20.56	0.01	7.18	346.91	9.46	0.03
6/23/2024 16:00	13.27	20.67	0.01	7.2	343.03	9.46	0.1
6/23/2024 16:10	13.28	21.28	0.01	7.21	342.07	9.45	0.06
6/23/2024 16:20	13.29	20.62	0.01	7.17	344.31	9.45	0.02
6/23/2024 16:30	13.29	20.46	0.01	7.16	344.12	9.45	0.13
6/23/2024 16:40	13.29	20.65	0.01	7.18	341.9	9.44	0.01
6/23/2024 16:50	13.28	20.7	0.01	7.16	343.63	9.44	0.05
6/23/2024 17:00	13.26	20.81	0.01	7.18	340.16	9.43	0.16
6/23/2024 17:10	13.25	20.81	0.01	7.14	343.23	9.42	0
6/23/2024 17:20	13.24	20.92	0.01	7.16	340.6	9.43	0.2
6/23/2024 17:30	13.25	20.9	0.01	7.16	340.59	9.44	0
6/23/2024 17:40	13.25	20.86	0.01	7.16	336.1	9.43	0
6/23/2024 17:50	13.27	20.75	0.01	7.17	338.66	9.43	0.35
6/23/2024 18:00	13.26	20.82	0.01	7.17	339.96	9.43	0
6/23/2024 18:10	13.25	20.79	0.01	7.15	341.77	9.43	0.21
6/23/2024 18:20	13.24	20.92	0.01	7.18	339.51	9.42	0.45
6/23/2024 18:30	13.22	20.83	0.01	7.15	341.37	9.43	0.13
6/23/2024 18:40	13.21	20.97	0.01	7.14	341.62	9.43	0.25
6/23/2024 18:50	13.2	20.91	0.01	7.13	341.9	9.43	0.01
6/23/2024 19:00	13.19	21.03	0.01	7.16	340.12	9.43	0.01
6/23/2024 19:10	13.17	21.65	0.01	7.14	341.24	9.43	0.02

WLNG DS 2024-06-17 to 2024-06-24

6/23/2024 19:20	13.16	20.96	0.01	7.13	342.68	9.44	0
6/23/2024 19:30	13.15	21.74	0.01	7.15	341.33	9.43	0.19
6/23/2024 19:40	13.14	20.99	0.01	7.14	342.36	9.44	0
6/23/2024 19:50	13.12	20.91	0.01	7.11	342.98	9.42	0
6/23/2024 20:00	13.09	21.11	0.01	7.14	341.38	9.43	0.1
6/23/2024 20:10	13.07	21.84	0.01	7.15	340.85	9.43	0.08
6/23/2024 20:20	13.05	21.12	0.01	7.12	343.63	9.42	0
6/23/2024 20:30	13.03	20.99	0.01	7.1	342.59	9.43	0.34
6/23/2024 20:40	13	21.22	0.01	7.11	341.78	9.43	0.3
6/23/2024 20:50	12.98	21.05	0.01	7.11	341.43	9.43	0.01
6/23/2024 21:00	12.96	21.21	0.01	7.1	340.28	9.44	0
6/23/2024 21:10	12.93	21.06	0.01	7.1	341.39	9.43	0
6/23/2024 21:20	12.91	21.2	0.01	7.11	340.9	9.44	0.06
6/23/2024 21:30	12.89	21.06	0.01	7.09	342.31	9.44	0.05
6/23/2024 21:40	12.87	21.22	0.01	7.12	339.28	9.45	0.23
6/23/2024 21:50	12.85	21.88	0.01	7.1	341.76	9.46	0
6/23/2024 22:00	12.83	21.19	0.01	7.09	343.3	9.46	0.07
6/23/2024 22:10	12.81	21.87	0.01	7.11	340.49	9.47	0.15
6/23/2024 22:20	12.79	21.17	0.01	7.11	342.47	9.46	0.1
6/23/2024 22:30	12.77	21.92	0.01	7.15	341.28	9.48	0.53
6/23/2024 22:40	12.74	21.15	0.01	7.11	345.38	9.48	0.32
6/23/2024 22:50	12.72	21.93	0.01	7.11	346.64	9.48	0.09
6/23/2024 23:00	12.69	21.23	0.01	7.11	348	9.49	0.11
6/23/2024 23:10	12.67	21.82	0.01	7.12	347.95	9.5	0.7
6/23/2024 23:20	12.64	21.15	0.01	7.09	349.9	9.51	0
6/23/2024 23:30	12.62	21.81	0.01	7.13	347.63	9.52	5.27
6/23/2024 23:40	12.6	21.18	0.01	7.12	349.15	9.51	0.07
6/23/2024 23:50	12.59	21.95	0.01	7.13	348.42	9.53	0.03
6/24/2024 0:00	12.57	21.27	0.01	7.11	349.72	9.52	0.13
6/24/2024 0:10	12.55	21.96	0.01	7.12	349.44	9.54	2.3
6/24/2024 0:20	12.54	21.24	0.01	7.13	349.4	9.54	0.13
6/24/2024 0:30	12.52	21.83	0.01	7.13	350.49	9.54	0
6/24/2024 0:40	12.51	21.08	0.01	7.1	351.79	9.55	0
6/24/2024 0:50	12.5	21.76	0.01	7.12	350.35	9.54	1
6/24/2024 1:00	12.48	21.12	0.01	7.1	350.96	9.55	0.01
6/24/2024 1:10	12.47	21.7	0.01	7.1	349.86	9.56	0.64
6/24/2024 1:20	12.45	21.12	0.01	7.1	349.32	9.55	0.54
6/24/2024 1:30	12.44	21.69	0.01	7.1	350.32	9.56	0.11
6/24/2024 1:40	12.42	21.21	0.01	7.09	351.09	9.57	0
6/24/2024 1:50	12.4	21.88	0.01	7.1	349.93	9.57	1.1
6/24/2024 2:00	12.39	21.47	0.01	7.1	348.79	9.58	0
6/24/2024 2:10	12.38	22.14	0.01	7.11	348.19	9.58	0
6/24/2024 2:20	12.37	21.66	0.01	7.08	348.91	9.57	0
6/24/2024 2:30	12.36	22.4	0.01	7.11	348	9.58	0.08
6/24/2024 2:40	12.35	21.77	0.01	7.08	349.24	9.58	1.28
6/24/2024 2:50	12.35	22.69	0.01	7.12	346.62	9.58	0.33
6/24/2024 3:00	12.34	21.83	0.01	7.1	348.29	9.59	0.7

WLNG DS 2024-06-17 to 2024-06-24

6/24/2024 3:10	12.33	22.46	0.01	7.11	348.41	9.6	0.05
6/24/2024 3:20	12.32	21.84	0.01	7.09	350.21	9.58	0.05
6/24/2024 3:30	12.31	22.51	0.01	7.12	350.7	9.59	0.64
6/24/2024 3:40	12.3	21.8	0.01	7.13	351.57	9.6	0.03
6/24/2024 3:50	12.29	22.68	0.01	7.11	351.95	9.6	0.01
6/24/2024 4:00	12.28	21.7	0.01	7.11	354.28	9.59	0.4
6/24/2024 4:10	12.27	22.61	0.01	7.1	354.4	9.6	0.12
6/24/2024 4:20	12.26	21.63	0.01	7.09	354.99	9.61	0.17
6/24/2024 4:30	12.26	22.58	0.01	7.11	352.44	9.61	0.14
6/24/2024 4:40	12.25	21.63	0.01	7.11	352.17	9.61	0.17
6/24/2024 4:50	12.24	22.4	0.01	7.1	352.85	9.61	0.59
6/24/2024 5:00	12.23	21.69	0.01	7.1	353.39	9.61	0.04
6/24/2024 5:10	12.22	22.68	0.01	7.13	352.31	9.6	0.24
6/24/2024 5:20	12.22	21.86	0.01	7.1	356.22	9.62	0.17
6/24/2024 5:30	12.21	22.79	0.01	7.1	355.67	9.61	0.04
6/24/2024 5:40	12.2	22.27	0.01	7.12	354.97	9.6	0.11
6/24/2024 5:50	12.19	22.89	0.01	7.11	355.72	9.62	0.01
6/24/2024 6:00	12.19	22.71	0.01	7.1	356.48	9.62	0.2
6/24/2024 6:10	12.18	23.48	0.01	7.14	353.32	9.63	2.14
6/24/2024 6:20	12.18	22.99	0.01	7.12	354.7	9.64	0.32
6/24/2024 6:30	12.17	23.46	0.01	7.13	353.94	9.63	0.43
6/24/2024 6:40	12.17	23.13	0.01	7.1	355.36	9.64	0.19
6/24/2024 6:50	12.17	24.02	0.01	7.15	353.1	9.64	0.19
6/24/2024 7:00	12.17	23.73	0.01	7.14	354.67	9.64	0.25
6/24/2024 7:10	12.17	24.41	0.01	7.12	355.41	9.65	0.21
6/24/2024 7:20	12.18	24.08	0.01	7.15	354.83	9.66	0.17
6/24/2024 7:30	12.18	25.19	0.01	7.12	356.49	9.65	0.82
6/24/2024 7:40	12.19	24.25	0.01	7.14	354.59	9.66	0.02
6/24/2024 7:50	12.2	24.99	0.01	7.15	354.24	9.66	0.08
6/24/2024 8:00	12.22	24.05	0.01	7.12	354.67	9.67	0.04
6/24/2024 8:10	12.24	24.92	0.01	7.16	352.31	9.67	10.94
6/24/2024 8:20	12.26	23.88	0.01	7.14	355.96	9.67	0.06
6/24/2024 8:30	12.28	24.52	0.01	7.16	352.22	9.66	0.13
6/24/2024 8:40	12.31	23.55	0.01	7.13	352.54	9.67	0.26
6/24/2024 8:50	12.34	24.38	0.01	7.14	351.3	9.66	0.1
6/24/2024 9:00	12.36	23.24	0.01	7.15	351.09	9.66	0.2
6/24/2024 9:10	12.38	23.01	0.01	7.14	350.94	9.64	0.22
6/24/2024 9:20	12.4	23.06	0.01	7.14	349.78	9.65	0.57
6/24/2024 9:30	12.43	22.74	0.01	7.14	348.41	9.64	0.04
6/24/2024 9:40	12.46	22.77	0.01	7.16	347.49	9.64	0.27
6/24/2024 9:50	12.51	22.52	0.01	7.13	346.77	9.64	0.19
6/24/2024 10:00	12.56	22.49	0.01	7.17	342.14	9.64	0.01
6/24/2024 10:10	12.62	22.28	0.01	7.15	343.26	9.63	0.05
6/24/2024 10:20	12.68	22.21	0.01	7.18	340.98	9.61	0.77
6/24/2024 10:30	12.74	22.05	0.01	7.14	343.5	9.6	1.6
6/24/2024 10:40	12.79	22.07	0.01	7.17	341.02	9.59	0.09
6/24/2024 10:50	12.84	21.98	0.01	7.16	340.6	9.58	0.06

WLNG DS 2024-06-17 to 2024-06-24

6/24/2024 11:00	12.9	22	0.01	7.17	339.71	9.57	0.11
6/24/2024 11:10	13.01	21.97	0.01	7.16	338.27	9.55	0.08
6/24/2024 11:20	13.12	21.93	0.01	7.17	335.69	9.52	0.04
6/24/2024 11:30	13.19	21.84	0.01	7.17	338.86	9.5	0.24
6/24/2024 11:40	13.21	21.89	0.01	7.17	341.35	9.49	0.1
6/24/2024 11:50	13.23	21.84	0.01	7.16	341.76	9.49	0.06
6/24/2024 12:00	13.72	41.19	0.02	7.35	333.95	9.23	1.24
6/24/2024 12:10	13.46	25.18	0.01	7.2	325	9.41	0.62
6/24/2024 12:20	13.3	22.62	0.01	7.2	327.66	9.47	0.02
6/24/2024 12:30	13.29	22.73	0.01	7.18	331.57	9.48	0.26
6/24/2024 12:40	13.41	21.72	0.01	7.18	333.41	9.47	0.16
6/24/2024 12:50	13.45	21.19	0.01	7.18	334.33	9.45	0.08
6/24/2024 13:00	13.5	21.4	0.01	7.2	332.32	9.43	0.49
6/24/2024 13:10	13.53	21.15	0.01	7.18	335.94	9.42	1.24
6/24/2024 13:20	13.54	21.39	0.01	7.18	331.61	9.43	0.3
6/24/2024 13:30	13.52	20.97	0.01	7.17	335.71	9.43	0.02
6/24/2024 13:40	13.5	21.27	0.01	7.18	335.84	9.42	0.13
6/24/2024 13:50	13.46	20.93	0.01	7.17	337.97	9.43	0.21
6/24/2024 14:00	13.43	21.23	0.01	7.15	338.83	9.43	0.17
6/24/2024 14:10	13.41	21.09	0.01	7.16	337.66	9.44	0.5
6/24/2024 14:20	13.42	21.34	0.01	7.17	336.75	9.44	0.75
6/24/2024 14:30	13.51	20.99	0.01	7.17	336.27	9.41	0.1
6/24/2024 14:40	13.6	21.32	0.01	7.18	333.44	9.4	0.07
6/24/2024 14:50	13.67	21.67	0.01	7.18	335.21	9.37	0.03
6/24/2024 15:00	13.73	21.03	0.01	7.19	336.44	9.39	0.06
6/24/2024 15:10	13.8	21.59	0.01	7.19	336.69	9.37	0.56
6/24/2024 15:20	13.86	21.07	0.01	7.19	336.86	9.36	0.18
6/24/2024 15:30	13.87	20.72	0.01	7.18	335.17	9.36	0.17
6/24/2024 15:40	13.88	21.07	0.01	7.18	336.36	9.36	0.16
6/24/2024 15:50	13.92	21.21	0.01	7.18	335.52	9.34	0.07
6/24/2024 16:00	13.9	21.18	0.01	7.17	331.97	9.35	0.17
6/24/2024 16:10	13.89	21.18	0.01	7.17	335.47	9.34	0.67
6/24/2024 16:20	13.89	21.19	0.01	7.18	335.86	9.34	0.06
6/24/2024 16:30	13.91	21.27	0.01	7.18	336.35	9.32	0.22
6/24/2024 16:40	13.84	21.24	0.01	7.19	336.26	9.33	0.31
6/24/2024 16:50	13.77	21.24	0.01	7.16	339.22	9.35	0.11
6/24/2024 17:00	13.78	21.37	0.01	7.18	338.38	9.33	0.03
6/24/2024 17:10	13.78	21.45	0.01	7.18	337.74	9.33	0
6/24/2024 17:20	13.72	21.48	0.01	7.16	337.67	9.35	0.03
6/24/2024 17:20	13.72	21.48	0.01	7.16	337.67	9.35	0.03
6/24/2024 17:30	13.69	21.48	0.01	7.16	339.97	9.34	0.12
6/24/2024 17:40	13.65	21.52	0.01	7.17	339.04	9.35	0.02
6/24/2024 17:50	13.63	22.38	0.01	7.16	340.31	9.35	0.14
6/24/2024 18:00	13.6	21.52	0.01	7.17	340.82	9.35	0.01
6/24/2024 18:10	13.59	21.54	0.01	7.15	340.36	9.35	0.1
6/24/2024 18:20	13.59	21.46	0.01	7.16	341.53	9.37	0.04
6/24/2024 18:30	13.56	21.58	0.01	7.15	342.35	9.35	0.2

WLNG DS 2024-06-17 to 2024-06-24

6/24/2024 18:40	13.52	21.64	0.01	7.14	340.69	9.35	0.02
6/24/2024 18:50	13.48	21.55	0.01	7.14	343.04	9.35	0.03
6/24/2024 19:00	13.44	21.72	0.01	7.14	342.92	9.36	0.07
6/24/2024 19:10	13.39	21.74	0.01	7.13	343.76	9.36	0.07
6/24/2024 19:20	13.35	21.81	0.01	7.14	339.52	9.37	0.08
6/24/2024 19:30	13.31	21.81	0.01	7.13	343.04	9.37	0.06
6/24/2024 19:40	13.27	21.84	0.01	7.15	340.42	9.38	0.15
6/24/2024 19:50	13.24	21.82	0.01	7.12	343.73	9.39	0.04
6/24/2024 20:00	13.21	21.91	0.01	7.14	344.78	9.39	0.05
6/24/2024 20:10	13.18	21.85	0.01	7.12	344.42	9.4	0.16
6/24/2024 20:20	13.15	21.94	0.01	7.12	341.11	9.41	0.04
6/24/2024 20:30	13.12	22.66	0.01	7.13	343.57	9.42	0.13
6/24/2024 20:40	13.09	21.83	0.01	7.13	344.49	9.42	0.11
6/24/2024 20:50	13.06	22.67	0.01	7.13	344.31	9.42	0.17
6/24/2024 21:00	13.03	21.98	0.01	7.13	345.39	9.42	0.19
6/24/2024 21:10	13	22.86	0.01	7.13	347.54	9.43	0.06
6/24/2024 21:20	12.97	21.83	0.01	7.13	347.04	9.45	0.42
6/24/2024 21:30	12.95	22.73	0.01	7.12	344.44	9.45	0
6/24/2024 21:40	12.92	21.88	0.01	7.14	343.31	9.45	0.02
6/24/2024 21:50	12.89	22.69	0.01	7.12	342.96	9.46	0.1
6/24/2024 22:00	12.87	21.88	0.01	7.11	343.98	9.46	0.1
6/24/2024 22:10	12.84	22.66	0.01	7.12	342.44	9.47	0.31
6/24/2024 22:20	12.81	21.78	0.01	7.12	343.03	9.48	0.07
6/24/2024 22:30	12.78	22.61	0.01	7.13	341.41	9.49	0.25
6/24/2024 22:40	12.76	21.75	0.01	7.12	342.58	9.49	0.13
6/24/2024 22:50	12.73	22.55	0.01	7.12	341.78	9.5	0.19
6/24/2024 23:00	12.71	21.7	0.01	7.11	343.34	9.5	0.2
6/24/2024 23:10	12.68	21.67	0.01	7.1	342.11	9.51	0.11
6/24/2024 23:20	12.66	21.74	0.01	7.09	341.79	9.51	0.31
6/24/2024 23:30	12.63	22.5	0.01	7.1	341.06	9.52	0.21
6/24/2024 23:40	12.61	21.69	0.01	7.11	341.5	9.53	0.26
6/24/2024 23:50	12.59	22.46	0.01	7.1	341.7	9.54	1.58