Eagle Mountain - Woodfibre Gas Pipeline Project

BCER Waste Discharge Permit Weekly Report

Contents

Preamble....3
Introduction....3
Sampling Methodology....3
Summary-BC Rail Site....5
Site Activities and Exceedances....5
Discharge from Water Treatment Plant....5
Receiving Environment Monitoring-Squamish River....5
Summary-Woodfibre....6
Site Activities and Exceedances....6
Discharge from Water Treatment Plant....6
Receiving Environment Monitoring-East Creek....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

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 environments (upstream and downstream) and points 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. Table 1 and Table 2 below show how each parameter is being monitored.

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

Permit Frequency	Parameters	Details
During discharges	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
During discharges	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 and Exceedances

- Weekly upstream and downstream taken by Triton.
- Water produced by the water treatment plant is being recirculated for tunneling and to create grout for tunneling.
- No discharge occurred during this reporting period.

Discharge from Water Treatment Plant

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
BC Rail- No discharges during this time period							

*Max discharge is 515 m3/day

Receiving Environment Monitoring-Squamish River

Table 4 and 5 below includes information on water quality and lab sampling. Appendix B includes a full set of lab results with real time data. The receiving environment is being monitored as outlined in the permit with additional oversight by the QP.

Table 4: Upstream Monitoring Information

Location	Date of Lab Sample	Real Time Monitored	Results
Squamish River Upstream	2025-03-10	Yes *	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	Results
Squamish River Downstream	2025-03-10	Yes *	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 15-minute intervals.

Summary-Woodfibre

Site Activities and Exceedances

- Weekly upstream, downstream and end of pipe taken by Triton.
- Ongoing tunnelling at WLNG and grouting works to mitigate water ingress.
- The discharge volumes from the WTP exceeded the maximum discharge volume of 1,500 m^3/day. Please see Table 6 for discharge volume summaries.

Discharge from Water Treatment Plant

Table 6 below includes information on the discharge water. Appendix C includes real time/field samples from the discharge.

Table 6: Discharges from Water Treatment System

Location	Date of Discharge	Real Time Monitored and Daily Monitoring	Discharge Volume
Woodfibre	2025-03-10	Yes-Appendix C	1,818m^3
Woodfibre	2025-03-11	Yes-Appendix C*lab sample day	1,959m^3
Woodfibre	2025-03-12	Yes-Appendix C	1,677m^3
Woodfibre	2025-03-13	Yes-Appendix C	1,712m^3
Woodfibre	2025-03-14	Yes-Appendix C	1,719m^3
Woodfibre	2025-03-15	Yes-Appendix C	1,731m^3
Woodfibre	2025-03-16	Yes-Appendix C	1,774m^3

*Max discharge is 1500m^3/day

Receiving Environment Monitoring-East Creek

Table 7 and 8 below includes information on water quality and lab sampling. Appendix D includes a full set of lab results with real time data. The receiving environment is being monitored as outlined in the permit with additional oversight by the QP.

Table 7: Upstream Monitoring Information

Location	Date of Lab Sample	Real Time Monitored	Results
East Creek Upstream	2025-03-11	Yes *	Full set of lab sample results, photo and documentation are provided in Appendix D.

Table 8: Downstream Monitoring Information

	Date of Lab Sample	Real Time Monitored	Results
East Creek Downstream	2025-03-11	Yes *	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 15-minute interval

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

BCR Site Batch Sample Analysis

No Discharges

BCR Site Batch Sample Lab Documentation

No Discharges

BCR Site WTP Discharge Field Notes and Logs
No Discharges

Appendix B: BCR Site Receiving Environment Documentation

BCR Site Receiving Environment Sample Analysis

TRITON	Sample ID				SQU US1 (Upstream)	SQU DS1 (Downstream)					
	LAB ID	Reviewed and signed off by:		Farshad Shafiei Ph.D., R.P.Bio.	VA25A5231-001	VA25A5231-002					
	Date Sampled				10-Mar-2025	10-Mar-2025					
	Time Sampled				09:51	09:35					
Analyte	Units	FAL-ST [1,2]	FAL-LT [1,2]	MAL-ST [1]	MAL-LT [1,2]	Water	Water	Sample or value notes	BCWQ FAL - Short Term	BCWQ FAL - Long Term	BCWQ MAL - Short Term	BCWQ MAL - Long Term
						N/A	N/A			Guideline notes		
In Situ Parameters												
pH (field)	pH units	6.5-9.0	6.5-9.0	7.0-8.7	7.0-8.7	7	6.9		If natural pH < 6.5, no statistically significant decrease from background. No restriction in increase except in areas with unique flora or fauna. Unrestricted change permitted within range of 6.5 to 9.0. If natural pH > 9.0, no statistically significant increase from background. Refer to BC Water Quality Guidelines for more information.		Unrestricted change within this range (for protection of mollusc embryo development).	
Temperature (field)	°C	Max +/- from BKG 1°C [4]	-	Max +/- from BKG 1°C [4]	-	4	4.1		Guideline is species-dependent. Short-term daily temperature guideline is 19°C for streams with unknown fish distribution. Refer to footnote 4 for background temperature range for the Squamish River. Refer to BC Water Quality Guidelines for more information Hourly rate of change not to exceed 1°C. Calculation: US value +/- 1 = guideline range		Guideline for marine waters are based on natural ambient conditions. Max and min. 1°C change from natural condition. Natural temperature cycle characteristic of the site should not be altered in amplitude or frequency by human activities. Max rate of any human-induced temperature change not to exceed 0.5°C hourly, treams with unknown fish distribution. Refer to footnote 4 for background temperature range for the Squamish River	
Conductivity (field)	µS/cm	-	-	-	-	49	52					
Turbidity (field)	NTU	Varies with background, see note Guideline = 11.30	Varies with background, see note Guideline = 4.39 5-week discrete sampling average = 3.6 (DS)	Varies with background, see note Guideline = 11.30	Varies with background, see note Guideline = 4.39	3.30	3.58		Change from background of 8 NTU at any one time for a duration of 24 h in all waters during clear flows or in clear waters. Calculation: US value + 8 = DS guideline Change from background of 5 NTU at any time when background is 8 - 50 NTU during high flows or in turbid waters. Calculation: US value + 5 = DS guideline Change from background of 10% when background is > 50 NTU at any time during high flows or in turbid waters. Calculation: US value + (US value*0.1) = DS guideline	Change from background of 2 NTU at any one time for 30 days in clear flows. Note that a rolling average of US values over a 30-day period is required to properly calculate this guideline. Guideline calculated in this spreadsheet using US concentration at the time of sampling.	Change from background of 8 NTU at any one time for a duration of 24 h in all waters during clear flows or in clear waters. Calculation: US value + 8 = DS guideline Change from background of 5 NTU at any time when background is 8 - 50 NTU during high flows or in turbid waters. Calculation: US value + 5 = DS guideline Change from background of 10% when background is > 50 NTU at any time during high flows or in turbid waters. Calculation: US value + (US value*0.1) = DS guideline	Change from background of 2 NTU at any one time for 30 days in clear flows. Note that a rolling average of US values over a 30-day period is required to properly calculate this guideline. Guideline calculated in this spreadsheet using US concentration at the time of sampling.
Dissolved Oxygen (field)	mg/L	Varies with life stage, see note	Varies with life stage, see note	Varies with life stage, see note	Varies with life stage, see note	11.24	11.34		Buried embryo/alevin minimum 9 mg/L, all other life stages 5 mg/L. Refer to BC Water Quality Guidelines for more information.	Buried embryo/alevin minimum 11 mg/L, all other life stages 8 mg/L. Refer to BC Water Quality Guidelines for more information.	Buried embryo/alevin minimum 9 mg/L, all other life stages 5 mg/L. Refer to BC Water Quality Guidelines for more information.	Buried embryo/alevin minimum 11 mg/L, all other life stages 8 mg/L. Refer to BC Water Quality Guidelines for more information.
General Parameters												
Hardness (as $CaCO_3$) (total)	mg/L	-	-	-	-	14.8	14.5					
Total Dissolved Solids	mg/L	-	-	-	-	26	20					
Total Suspended Solids	mg/L	Varies with background, see note Guideline = 29.3	Varies with background, see note Guideline = 16.8 5-week discrete sampling average = 8.3 (DS)	Varies with background, see note Guideline = 29.3	Varies with background, see note Guideline = 8.3 5-week discrete sampling average = 4.22 (DS)	4.3	7.1		Change from background of 25 mg/L at any one time for duration of 24 h in all waters during clear flows or in clear waters. Calculation: US value + 25 = DS guideline Change from background of 10 mg/L at any one time when background 25-100 mg/L during high flows or turbid waters. Calculation: US value + 10 = DS guideline Change from background of 10% when background is > 100 mg/L at any time during high flows or turbid waters. Calculation: US value + (US value*0.1) = DS guideline	Change from background of 5 mg/L @ one time for a druation of 30 days in clear flow. Note that a rolling average of US values over a 30-day period is required to properly calculate this guideline. Guideline calculated in this spreadsheet using US concentration at the time of sampling.	Change from background of 25 mg/L at any one time for duration of 24 h in all waters during clear flows or in clear waters. Calculation: US value + 25 = DS guideline Change from background of 10 mg/L at any one time when background 25-100 mg/L during high flows or turbid waters. Calculation: US value + 10 = DS guideline Change from background of 10% when background is > 100 mg/L at any time during high flows or turbid waters. Calculation: US value + (US value*0.1) = DS guideline	Change from background of 5 mg/L @ one time for a druation of 30 days in clear flow. Note that a rolling average of US values over a 30-day period is required to properly calculate this guideline. Guideline calculated in this spreadsheet using US concentration at the time of sampling.
Dissolved Organic Carbon (DOC)	mg/L	-	-	-	-	3.18	3.2			Long-term (30-day) median within 20% of background median [3]		
Total Alkalinity ($CaCO_3$)	mg/L	-	Categorical	-	-	12.5	12.2			Guideline is for alkalinity (as CaCO3) and categorizes the sensitivity of a water body to acid inputs. Alkalinity < 10 mg/L is considered highly sensitive to acid inputs; 10 - 20 mg/L is considered moderately sensitive to acid inputs; > 20 mg/L is considered low sensitivity.		
Total Sulfide (as S)	mg/L	-	-	-	-	< 0.0015	< 0.0015					
Total Sulfide (un-ionized as H_2S)	mg/L	-	0.002	-	-	< 0.0015	< 0.0015			Working guideline		
Total Sulfide (as H_2S)	mg/L	-	-	-	-	< 0.0016	< 0.0016					
Anions and Nutrients												
Ammonia	mg/L ammonia-N	Varies with pH and temperature. See note. Guideline = 21.9	Varies with pH and temperature. See note. Guideline = 1.94	Varies with pH and temperature. See note. Guideline = 191	Varies with pH, temperature and salinity. See note. Guideline = 29	0.0338	0.0242		Guideline for ammonia as N and is pH and temperature dependent. Refer to Table 27D in BC WQG for guideline values.	Guideline for ammonia as N and is pH and temperature dependent. Refer to Table 27C in BC WQG for guideline values.	Guideline for ammonia as N. Guideline is pH, temperature and salinity dependent. Refer to Table 27F in BC WQG for guideline values.	Guideline for ammonia as N. Guideline is pH, temperature and salinity dependent. Refer to Table 27E in BC WQG for guideline values.
Bromide	mg/L	-	-	-	-	< 0.050	< 0.050					
Chloride	mg/L	600	150	+/- 10% from BKG	+/- 10% from BKG	1.82	1.67				Human activities should not cause the chloride of marine and estuarine waters to fluctuate by more than 10% of the natural chloride expected at that time and depth.	Human activities should not cause the chloride of marine and estuarine waters to fluctuate by more than 10% of the natural chloride expected at that time and depth.
Fluoride	mg/L	Varies with hardness Guideline = 0.566	-	1.5	-	< 0.020	< 0.020		Guideline has interim status. Guideline is calculated with the following equation: Guideline = [-51.73 + 92.57 log10 (hardness)] * 0.01			
Nitrate (as N)	mg/L	32.8	3	-	3.7	0.116	0.0994					
Nitrite (as N)	mg/L	Varies with chloride. See note. Guideline = 0.06	Varies with chloride. See note. Guideline = 0.06	-	-	0.0025	0.0015		Varies with chloride. Refer to Table 29B in BC WQG for guideline values.	Varies with chloride. Refer to Table 27B in BC WQG for guideline values.		
Total Nitrogen	mg/L	-	-	-	-	0.243	0.224					
Total Phosphorous	mg/L	-	0.005 to 0.015	-	-	0.0237	0.114			Guideline is for lakes, refer to BCWQ guideline for nutrients and algae for more information. Guideline does not apply to site.		
Sulfate (as SO_4)	mg/L	-	Varies with hardness. See note. Guideline = 128	-	-	4.02	3.91			Guidelines for hardness ranges below: Hardness 0 - 79: 218 Hardness 31 - 75: 218 Hardness 76 - 180: 309 Hardness 181 - 250: 429		
Total Metals												
Aluminum (Al)-Total	mg/L	-	Varies with pH, DOC, hardness Guideline = 0.045 5-week field average = 0.119 (US), 0.13 (DS)	-	-	0.233	0.225	US and DS Samples exceed longterm BCWQL FAL guidelines		Guideline varies with pH, hardness and Dissolved Organic Carbon (DOC). Guideline is calculated with the following equation: Guideline = (EXP((0.645 * LN(DOC)) + (2.255 * LN(hardness)) + (1.995 * pH) + (-0.254 * (LN(hardness) * pH))-9.838))/1000) If hardness or DOC is below the hardness or DOC range, the minimum hardness or DOC will be applied in the calculation.		
Antimony (Sb)-Total	mg/L	0.25	0.074	-	-	< 0.00010	< 0.00010					
Arsenic (As)-Total	mg/L	-	0.005	-	0.0125	0.00016	0.00018					Interim guideline status
Barium (Ba)-Total	mg/L	-	1	-	-	0.00831	0.00833			Working guideline status		
Beryllium (Be)-Total	mg/L	-	0.00013	-	0.100	< 0.000100	< 0.000100			Working guideline status		Working guideline status
Bismuth (Bi)-Total	mg/L	-	-	-	-	< 0.000050	< 0.000050					
Boron (B)-Total	mg/L	-	1.2	-	1.2	< 0.010	< 0.010					
Cadmium (Cd)-Total	mg/L	-	-	-	0.00012	0.000138	0.000138					Working guideline status
Calcium (Ca)-Total	mg/L	-	-	-	-	4.9	4.82					
Caesium (Cs)-Total	mg/L	-	-	-	-	0.000018	0.000014					
Chromium (Cr) - Total	mg/L	-	-	-	-	< 0.00050	< 0.00050					
Chromium (Cr(III))-Total	mg/L	-	0.0089	-	0.056	< 0.00050	< 0.00050			Working guideline status		Working guideline status
Chromium (Cr(VI))-Total	mg/L	-	0.0025	-	0.0015	< 0.00050	< 0.00050			Working guideline status		Working guideline status
Cobalt (Co)-Total	mg/L	0.11	0.004	-	-	0.00011	0.00011					
Copper (Cu)-Total	mg/L	-	-	0.003	0.0014 5-week field average = 0.00095 (US), 0.00056 (DS)	0.00151	0.00156					
Iron (Fe)-Total	mg/L	1	-	-	-	0.26	0.224					
Lead (Pb)-Total	mg/L	-	-	0.14	0.002 5-week field average = 0.000056 (US), 0.0000614 (DS)	0.000068	0.000084					
Lithium (Li)-Total	mg/L	-	-	-	-	< 0.0010	< 0.0010					
Magnesium (Mg)-Total	mg/L	-	-	-	-	0.636	0.609					
Manganese (Mn)-Total	mg/L	Varies with hardness Guideline = 0.715	Varies with hardness Guideline = 0.768	-	-	0.00681	0.00875		Guideline varies with hardness. The guideline is calculated using the following equation: Guideline = (0.0044 * hardness + 0.605) Guideline applies to samples with hardness 25-259 mg/L. Lowest value for guideline is 0.77 mg/L. If hardness is below the hardness range, the minimum hardness will be applied in the calculation.	Guideline varies with hardness, refer to BC Water Quality Guidelines for more information. The guideline is calculated using the following formula: Guideline = (0.01102 * hardness + 0.54) Guideline applies to samples with hardness 37-450 mg/L. Lowest value for guideline is 0.81 mg/L. If hardness is below the hardness range, the minimum hardness will be applied in the calculation.		
Mercury (Hg)-Total	mg/L	-	Varies with methyl mercury Guideline = N/A	-	-	< 0.0000050	< 0.0000050			When MeHg ≤ 0.5% of total Hg, guideline is equal to 0.02 mg/L Guideline = 0.1(MeHgtotalHg). When MeHg ≤ 0.5% of total Hg, guideline is equal to 0.02 mg/L		
Molybdenum (Mo)-Total	mg/L	46	7.6	-	-	0.00046	0.00045					
Nickel (Ni)-Total	mg/L	-	-	-	0.0083	< 0.00050	< 0.00050					Working guideline status
Potassium (K)-Total	mg/L	-	-	-	-	0.9	1.58					
Rubidium (Rb)-Total	mg/L	-	-	-	-	0.00082	0.00093					
Selenium (Se)-Total	mg/L	-	0.002	-	0.002	< 0.000050	< 0.000050			Guideline for freshwater aquatic life (water column). Alert concentration is 0.001 mg/L, with separate guidelines for sediment, invertebrate and fish tissue. Refer to BC Water Quality Guidelines for more information on guidelines and sampling guidance.		Guideline for marine aquatic life (water column). Alert concentration is 0.001 mg/L, with separate guidelines for sediment, invertebrate and fish tissue. Refer to BC Water Quality Guidelines for more.
Silicon (Si)-Total	mg/L	-	-	-	-	4.38	4.23					
Silver (Ag)-Total	mg/L	Varies with hardness, see note Guideline = 0.0001	Varies with hardness, see note Guideline = 0.00005 5-week field average = < 0.00001 (US), 0.0000102 (DS)	0.003	0.0015	<0.000010	0.000011		Varies with hardness Guideline ranges: Hardness ≤ 100: 0.0001 Hardness > 100: 0.003	Varies with hardness Guideline ranges: Hardness ≤ 100: 0.00005 Hardness > 100: 0.0015		Guideline applies to open coast and estuaries. Guideline is applicable to the EGP site.
Sodium (Na)-Total	mg/L	-	-	-	-	2.09	2.03					
Strontium (Sr)-Total	mg/L	-	-	-	-	0.031	0.0312					
Sulfur (S)-Total	mg/L	-	-	-	-	1.17	1.11					
Tellurium (Te)-Total	mg/L	-	-	-	-	< 0.00020	< 0.00020					
Thallium (Tl)-Total	mg/L	-	0.00003	-	-	< 0.000010	< 0.000010			30-day average, site-specific objective for the lower Columbia River. BC Guideline is for reference only and does not apply to tme EGP site.		
Thorium (Th)-Total	mg/L	-	-	-	-	< 0.00010	< 0.00010					
Tin (Sn)-Total	mg/L	-	-	-	-	< 0.00010	< 0.00010					
Titanium (Ti)-Total	mg/L	-	-	-	-	0.00018	0.00008					
Tungsten (W)-Total	mg/L	-	-	-	-	< 0.00010	< 0.00010					
Uranium (U)-Total	mg/L	0.0165	0.0075	-	-	0.000034	0.000042			Working guideline status		
Vanadium (V)-Total	mg/L	-	0.06	-	0.005 5-week field average = 0.00135 (US), 0.00133 (DS)	0.00129	0.00122					Working guideline status
Zinc (Zn)-Total	mg/L	-	-	0.055	Guideline = 0.010 5-week field average = 0.00394 (US), 0.00348 (DS)	0.0039	0.0054					
Zirconium (Zr)-Total	mg/L	-	-	-	-	< 0.00020	< 0.00020					
Dissolved Metals												
Aluminum (Al)-Dissolved	mg/L	-	-	-	-	0.076	0.0741					
Antimony (Sb)-Dissolved	mg/L	-	-	-	-	< 0.00010	< 0.00010					
Arsenic (As)-Dissolved	mg/L	-	-	-	-	0.00011	0.00012					
Barium (Ba)-Dissolved	mg/L	-	-	-	-	0.00856	0.0084					
Beryllium (Be)-Dissolved	mg/L	-	-	-	-	< 0.000100	< 0.000100					
Bismuth (Bi)-Dissolved	mg/L	-	-	-	-	< 0.000050	< 0.000050					
Boron (B)-Dissolved	mg/L	-	-	-	-	< 0.010	< 0.010					
Cadmium (Cd)-Dissolved	mg/L	Varies with hardness, see note Guideline = 0.000082	Varies with hardness, see note Guideline = 0.000068	-	-	0.0000105	0.000006		Guideline is hardness dependent. Guideline is applicable to water hardness between 7.0 and 400 mg/L. Guideline is calculated with the following formula: Guideline = (EXP(1.03 * (LN(hardness)) - 5.274))/1000) Lowest value for guideline is 0.000018 mg/L. If hardness is below the hardness range, the minimum hardness will be applied in the calculation.	Guideline is hardness dependent. Guideline is applicable to hardness between 3.4 and 295 mg/L. Guideline is calculated with the following formula: Guideline = (EXP(0.736 * (LN(hardness)) - 4.943))/1000) Lowest value for guideline is 0.00004. If hardness is below the hardness range, the minimum hardness will be applied in the calculation.		
Calcium (Ca)-Dissolved	mg/L	-	Categorical, see note	-	-	0.00091	0.00088			Guideline categorizes the sensitivity of a water body to acid inputs (i.e. buffering capacity). Standard is 4 mg/L dissolved Ca for the most sensitive waterbodies,5 - 8 mg/L for waterbodies with moderate sensitivity to acid inputs. Waterbodies with dissolved calcium > 8mg/L are considered to have low sensitivity to acid inputs.		
Cesium (Cs)-Dissolved	mg/L	-	-	-	-	0.00091	0.00088					
Chromium (Cr)-Dissolved	mg/L	-	-	-	-	< 0.00050	< 0.00050					
Cobalt (Co)-Dissolved	mg/L	-	-	-	-	< 0.00010	< 0.00010					
Copper (Cu)-Dissolved	mg/L	Guideline varies with other parameters, see note Guideline = 0.0023	Guideline varies with other parameters, see note Guideline = 0.0002 5-week field average = 0.000684 (US), 0.000642 (DS)	-	-	0.00091	0.00088		Guideline varies with other parameters and is calculated using BC BLM software. Simplified model: Temperature, pH, DOC and hardness Detailed model: Temperature, pH, DOC, humic acid content, total calcium, total magnesium, total sodium, total potassium, sulphate, chloride, and alkalinity Guideline calculated using values for parameters above taken at the specific site on each sampling date	Guideline varies with other parameters and is calculated using BC BLM software. Simplified model: Temperature, pH, DOC and hardness Detailed model: Temperature, pH, DOC, humic acid content, total calcium, total magnesium, total sodium, total potassium, sulphate, chloride, and alkalinity Guideline calculated using values for parameters above taken at the specific site on each sampling date		
Iron (Fe)-Dissolved	mg/L	0.35	-	-	-	0.097	0.069					
Lead (Pb)-Dissolved	mg/L	-	Guideline varies with DOC and hardness Guideline = 0.00210 5-week field average = <0.00005 (US), < 0.00005 (DS)	-	-	< 0.000050	< 0.000050			Guideline varies with DOC and hardness, refer to BC Water Quality Guidelines for more information. Guideline uses equation (EXP((0.514*LN(DOC))-0.214*LN(hardness))+0.4354))/1000 where DOC range is 0.5-31.5 mg/L and hardness range is 4.7-511 mg/L		
Lithium (Li)-Dissolved	mg/L	-	-	-	-	< 0.0010	< 0.0010					
Magnesium (Mg)-Dissolved	mg/L	-	-	-	-	0.561	0.539					
Manganese (Mn)-Dissolved	mg/L	-	-	-	-	0.00578	0.00474					
Mercury (Hg)-Dissolved	mg/L	-	-	-	-	< 0.0000050	< 0.0000050					
Molybdenum (Mo)-Dissolved	mg/L	-	-	-	-	0.000451	0.000462					
Nickel (Ni)-Dissolved	mg/L	Guideline varies with other parameters, see note Guideline = 0.0187	Guideline varies with other parameters, see note Guideline = 0.0009798 5-week field average = < 0.0005 (US), < 0.0005 (DS)	0.0003	-	< 0.00050	< 0.00050		Guideline varies with other parameters and is calculated using BC BLM software. Simplified model: Temperature, pH, DOC and hardness Detailed model: Temperature, pH, DOC, humic acid content, total calcium, total magnesium, total sodium, total potassium, sulphate, chloride, and alkalinity Guideline calculated using values for parameters above taken at the specific site on each sampling date	Guideline varies with other parameters and is calculated using BC BLM software. Simplified model: Temperature, pH, DOC and hardness Detailed model: Temperature, pH, DOC, humic acid content, total calcium, total magnesium, total sodium, total potassium, sulphate, chloride, and alkalinity Guideline calculated using values for parameters above taken at the specific site on each sampling date		
Phosphorus (P)-Dissolved	mg/L	-	-	-	-	< 0.050	< 0.050					
Potassium (K)-Dissolved	mg/L	-	-	-	-	0.486	0.455					
Rubidium (Rb)-Dissolved	mg/L	-	-	-	-	0.00083	0.00086					
Selenium (Se)-Dissolved	mg/L	-	-	-	-	< 0.000050	< 0.000050					
Silicon (Si)-Dissolved	mg/L	-	-	-	-	3.92	3.72					
Silver (Ag)-Dissolved	mg/L	-	-	-	-	< 0.000010	< 0.000010					
Sodium (Na)-Dissolved	mg/L	-	-	-	-	2.04	1.94					
Strontium (Sr)-Dissolved	mg/L	-	-	-	-	0.0317	0.0314					
Sulfur (S)-Dissolved	mg/L	-	-	-	-	1.12	1.05					
Tellurium (Te)-Dissolved	mg/L	-	-	-	-	< 0.00020	< 0.00020					
Thallium (Tl)-Dissolved	mg/L	-	-	-	-	< 0.000010	< 0.000010					
Thorium (Th)-Dissolved	mg/L	-	-	-	-	< 0.00010	< 0.00010					
Tin (Sn)-Dissolved	mg/L	-	-	-	-	< 0.00010	< 0.00010					
Titanium (Ti)-Dissolved	mg/L	-	-	-	-	0.00044	0.00054					
Tungsten (W)-Dissolved	mg/L	-	-	-	-	< 0.00010	< 0.00010					
Uranium (U)-Dissolved	mg/L	-	-	-	-	0.000032	0.000031					
Vanadium (V)-Dissolved	mg/L	-	-	-	-	0.00085	0.00079					
Zinc (Zn)-Dissolved	mg/L	Varies with DOC and hardness Guideline = 0.011	Varies with pH, DOC, hardness Guideline = 0.0059 5-week field average = 0.0024 (US), 0.0018 (DS)	-	-	0.0013	0.001		Guideline varies with DOC and hardness. Guideline is calculated using the following formula: Guideline = (EXP((0.8317 * (LN(hardness)) + (0.24 * (LN(DOC)) + 0.526))/1000) If hardness or DOC is below the hardness or DOC range, the minimum hardness or DOC will be applied in the calculation.	Guideline varies with pH, hardness and Dissolved Organic Carbon (DOC). Guideline is calculated using the following formula: Guideline = (EXP((0.974 * (LN(hardness)) - (0.815 * pH) + (0.398 * (LN(DOC)) + 4.625))/1000) Guideline only applies to water with pH between 6.5 and 8.13, DOC between 0.3 and 22.9 mg/L, wrmd hardness between 23.4 and 399 mg/L. If hardness or DOC is below the hardness or DOC range, the minimum hardness or DOC will be applied in the calculation.		
Zirconium (Zr)-Dissolved	mg/L	-	-	-	-	< 0.00020	< 0.00020					
Applied Guideline:		**British Columbia Approved and Working Water Quality Guidelines (NOV 2023) for Freshwater Aquatic Life (FAL) & Marine Aquatic Life (MAL) Short-Term (ST) & Long-Term (LT)**										

[1]BC MOECCS. 2023. BC Water Quality Guidelines for the Protection of Aquatic Life, Wildlife & Agriculture. Accessed from:
epic_summary_aquatic-life_wildlife_agri.pdf (gov.bc.ca)
[2]BC MOECCS. 2021. BC Working Water Quality Guidelines for the Protection of Aquatic Life, Wildlife & Agriculture. Accessed from:
for_epic_working_water_quality_guidelines.pdf (gov.bc.ca)
[3]Note that long-term guidelines apply to averaged data to account for chronic impacts to aquatic life. Ideally, five samples collected at evenly spaced intervals over 30 days is considered to be the minimum number needed to calculate the long-term average of any parameter, though this may vary by parameter and site conditions. Long-term guidelines applied here are for reference only and may not indicate chronic impacts to aquatic life if exceedances occur in the short term.
[4]Background temperature range: Dec-Feb: 2.0-4.0C; Mar-Apr: 4.0-8.0C; May-June: 6.0-12.0C; Jul-Sept: 9.0-12.0C; Oct-Nov: 3.0-5.0
Reference: Triton Environmental Consulants Ltd. 2023. Memo - Background water quality values for the BC Rail Discharge to Squamish River
For guidelines dependent on other parameters, when hardness, pH or DOC are below the range stated in the guideline, the lowest value in the range is used to calculate the guideline.

Parameters Used to Calculate Guidelines

Analyte	Units	Method of Measurements	Values SQU US1 (Upstream)	Values SQU DS1 (Downstream)
pH (field)	pH units	Field pH taken using handheld meters during sampling used in calculations	7	6.90
Temperature (field)	°C	Field temperature taken using handheld meters during sampling used in calculations	4	4.1
Turbidity (field)	NTU	Field turbidity taken using handheld meters during sampling used in calculations	3.30	3.58
Hardness (as $CaCO_3$) (total)	mg/L	Laboratory tested total hardness taken at each respective sample site on the day of sampling used in guideline calculations	14.8	14.5
Dissolved Organic Carbon (DOC)	mg/L	Laboratory tested dissolved organic carbon tested at the lab used in guideline calculations	3.18	3.2
Total Alkalinity ($CaCO_3$)	mg/L	Laboratory tested total alkalinity used in calculations	12.5	12.2
Chloride	mg/L	Laboratory tested chloride taken at each respective sample site on the day of sampling used in guideline calculations	1.82	1.67

BCR Site Receiving Environment Lab Documentation

CERTIFICATE OF ANALYSIS

Work Order	:	**VA25A5231**		
Client	:	**Triton Environmental Consultants Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	:	[redacted]	Account Manager	: [redacted]
Address	:		Address	:
Telephone	:		Telephone	:
Project	:		Date Samples Received	:
PO	:		Date Analysis Commenced	:
C-O-C number	:	----	Issue Date	:
Sampler	:	AR, WB		
Site	:	Water Analysis		
Quote number	:	VA25-TRIT100-001		
No. of samples received	:	2		
No. of samples analysed	:	2		

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

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

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

Signatories

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

Signatories	*Position*	*Laboratory Department*
[redacted]		Inorganics, Burnaby, British Columbia
		Metals, Burnaby, British Columbia
		Metals, Burnaby, British Columbia
		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).

Unit	*Description*
-	no units
°C	degrees celsius
mg/L	milligrams per litre
pH units	pH units
µS/cm	microsiemens per centimetre

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

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SQU US 1	SQU DS 1	----	----	----
					Client sampling date / time	10-Mar-2025 09:51	10-Mar-2025 09:35	----	----	----
						VA25A5231-001	VA25A5231-002	----	----	----
						Result	Result	----	----	----
Field Tests										
Conductivity, field	----	EF001/VA	0.10	µS/cm		49.000	52.000	----	----	----
pH, field	----	EF001/VA	0.10	pH units		7.00	6.90	----	----	----
Temperature, field	----	EF001/VA	0.10	°C		4.00	4.10	----	----	----
Physical Tests										
Hardness (as CaCO3), dissolved	----	EC100/VA	0.60	mg/L		14.3	14.2	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/VA	0.60	mg/L		14.8	14.5	----	----	----
Solids, total dissolved [TDS]	----	E162/VA	10	mg/L		26	20	----	----	----
Solids, total suspended [TSS]	----	E160/VA	3.0	mg/L		4.3	7.1	----	----	----
Alkalinity, total (as CaCO3)	----	E290/VA	2.0	mg/L		12.5	12.2	----	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L		0.0338	0.0242	----	----	----
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		1.82	1.67	----	----	----
Fluoride	16984-48-8	E235.F/VA	0.020	mg/L		<0.020	<0.020	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/VA	0.0050	mg/L		0.116	0.0994	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/VA	0.0010	mg/L		0.0025	0.0015	----	----	----
Nitrogen, total	7727-37-9	E366/VA	0.030	mg/L		0.243	0.224	----	----	----
Phosphorus, total	7723-14-0	E372-U/VA	0.0020	mg/L		0.0237	0.114	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/VA	0.30	mg/L		4.02	3.91	----	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/VA	0.50	mg/L		3.18	3.20	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SQU US 1	SQU DS 1	----	----	----
					Client sampling date / time	10-Mar-2025 09:51	10-Mar-2025 09:35	----	----	----
						VA25A5231-001	VA25A5231-002	----	----	----
						Result	Result	----	----	----
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		0.233	0.225	----	----	----
Antimony, total	7440-36-0	E420/VA	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Arsenic, total	7440-38-2	E420/VA	0.00010	mg/L		0.00016	0.00018	----	----	----
Barium, total	7440-39-3	E420/VA	0.00010	mg/L		0.00831	0.00833	----	----	----
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		0.0000116	0.0000138	----	----	----
Calcium, total	7440-70-2	E420/VA	0.050	mg/L		4.90	4.82	----	----	----
Cesium, total	7440-46-2	E420/VA	0.000010	mg/L		0.000016	0.000016	----	----	----
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		0.00011	0.00011	----	----	----
Copper, total	7440-50-8	E420/VA	0.00050	mg/L		0.00151	0.00156	----	----	----
Iron, total	7439-89-6	E420/VA	0.010	mg/L		0.260	0.224	----	----	----
Lead, total	7439-92-1	E420/VA	0.000050	mg/L		0.000068	0.000084	----	----	----
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		0.636	0.609	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SQU US 1	SQU DS 1	----	----	----
					Client sampling date / time	10-Mar-2025 09:51	10-Mar-2025 09:35	----	----	----
						VA25A5231-001	VA25A5231-002	----	----	----
						Result	Result	----	----	----
Total Metals										
Manganese, total	7439-96-5	E420/VA	0.00010	mg/L		0.00981	0.00875	----	----	----
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		0.000460	0.000450	----	----	----
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		0.056	0.162	----	----	----
Potassium, total	7440-09-7	E420/VA	0.050	mg/L		0.900	1.58	----	----	----
Rubidium, total	7440-17-7	E420/VA	0.00020	mg/L		0.00082	0.00093	----	----	----
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		4.38	4.23	----	----	----
Silver, total	7440-22-4	E420/VA	0.000010	mg/L		<0.000010	0.000011	----	----	----
Sodium, total	7440-23-5	E420/VA	0.050	mg/L		2.09	2.03	----	----	----
Strontium, total	7440-24-6	E420/VA	0.00020	mg/L		0.0310	0.0312	----	----	----
Sulfur, total	7704-34-9	E420/VA	0.50	mg/L		1.17	1.11	----	----	----
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	----	----	----
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		0.00518	0.00508	----	----	----
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		0.000034	0.000042	----	----	----
Vanadium, total	7440-62-2	E420/VA	0.00050	mg/L		0.00129	0.00122	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SQU US 1	SQU DS 1	----	----	----
					Client sampling date / time	10-Mar-2025 09:51	10-Mar-2025 09:35	----	----	----
						VA25A5231-001	VA25A5231-002	----	----	----
						Result	Result	----	----	----
Total Metals										
Zinc, total	7440-66-6	E420/VA	0.0030	mg/L		0.0039	0.0054	----	----	----
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		0.0760	0.0741	----	----	----
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		0.00011	0.00012	----	----	----
Barium, dissolved	7440-39-3	E421/VA	0.00010	mg/L		0.00655	0.00640	----	----	----
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		0.0000105	0.0000060	----	----	----
Calcium, dissolved	7440-70-2	E421/VA	0.050	mg/L		4.80	4.78	----	----	----
Cesium, dissolved	7440-46-2	E421/VA	0.000010	mg/L		0.000015	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		0.00091	0.00088	----	----	----
Iron, dissolved	7439-89-6	E421/VA	0.010	mg/L		0.097	0.069	----	----	----
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		0.561	0.539	----	----	----
Manganese, dissolved	7439-96-5	E421/VA	0.00010	mg/L		0.00576	0.00474	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SQU US 1	SQU DS 1	----	----	----
					Client sampling date / time	10-Mar-2025 09:51	10-Mar-2025 09:35	----	----	----
						VA25A5231-001	VA25A5231-002	----	----	----
						Result	Result	----	----	----
Dissolved Metals										
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		0.000451	0.000462	----	----	----
Nickel, dissolved	7440-02-0	E421/VA	0.00050	mg/L		<0.00050	<0.00050	----	----	----
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		0.486	0.455	----	----	----
Rubidium, dissolved	7440-17-7	E421/VA	0.00020	mg/L		0.00063	0.00066	----	----	----
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		3.92	3.72	----	----	----
Silver, dissolved	7440-22-4	E421/VA	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Sodium, dissolved	7440-23-5	E421/VA	0.050	mg/L		2.04	1.94	----	----	----
Strontium, dissolved	7440-24-6	E421/VA	0.00020	mg/L		0.0317	0.0314	----	----	----
Sulfur, dissolved	7704-34-9	E421/VA	0.50	mg/L		1.12	1.05	----	----	----
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		0.00044	0.00054	----	----	----
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		0.000032	0.000031	----	----	----
Vanadium, dissolved	7440-62-2	E421/VA	0.00050	mg/L		0.00085	0.00079	----	----	----
Zinc, dissolved	7440-66-6	E421/VA	0.0010	mg/L		0.0013	0.0010	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SQU US 1	SQU DS 1	----	----	----
					Client sampling date / time	10-Mar-2025 09:51	10-Mar-2025 09:35	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA25A5231-001	VA25A5231-002	----	----	----
						Result	Result	----	----	----
Dissolved Metals										
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/VA	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Chromium, trivalent [Cr III], total	16065-83-1	EC535/VA	0.00050	mg/L		<0.00050	<0.00050	----	----	----

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

alsglobal.com

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA25A5231**	Page	: 1 of 14
Client	: **Triton Environmental Consultants Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	:	Account Manager	:
Address	:	Address	:
Telephone	:	Telephone	:
Project	:	Date Samples Received	:
PO	:	Issue Date	:
C-O-C number	: ----		
Sampler	: AR, WB		
Site	: Water Analysis		
Quote number	: VA25-TRIT100-001		
No. of samples received	: 2		
No. of samples analysed	: 2		

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

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

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

Summary of Outliers

Outliers : Quality Control Samples

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

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- 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 Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SQU DS 1	E298	10-Mar-2025	12-Mar-2025	28 days	2 days	✓	14-Mar-2025	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SQU US 1	E298	10-Mar-2025	12-Mar-2025	28 days	2 days	✓	14-Mar-2025	28 days	4 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE SQU DS 1	E235.Br-L	10-Mar-2025	12-Mar-2025	28 days	2 days	✓	12-Mar-2025	28 days	2 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE SQU US 1	E235.Br-L	10-Mar-2025	12-Mar-2025	28 days	2 days	✓	12-Mar-2025	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE SQU DS 1	E235.Cl	10-Mar-2025	12-Mar-2025	28 days	2 days	✓	12-Mar-2025	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE SQU US 1	E235.Cl	10-Mar-2025	12-Mar-2025	28 days	2 days	✓	12-Mar-2025	28 days	2 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE SQU DS 1	E235.F	10-Mar-2025	12-Mar-2025	28 days	2 days	✓	12-Mar-2025	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 Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Fluoride in Water by IC										
HDPE SQU US 1	E235.F	10-Mar-2025	12-Mar-2025	28 days	2 days	✓	12-Mar-2025	28 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SQU DS 1	E235.NO3-L	10-Mar-2025	12-Mar-2025	3 days	2 days	✓	12-Mar-2025	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SQU US 1	E235.NO3-L	10-Mar-2025	12-Mar-2025	3 days	2 days	✓	12-Mar-2025	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SQU DS 1	E235.NO2-L	10-Mar-2025	12-Mar-2025	3 days	2 days	✓	12-Mar-2025	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SQU US 1	E235.NO2-L	10-Mar-2025	12-Mar-2025	3 days	2 days	✓	12-Mar-2025	3 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SQU DS 1	E235.SO4	10-Mar-2025	12-Mar-2025	28 days	2 days	✓	12-Mar-2025	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SQU US 1	E235.SO4	10-Mar-2025	12-Mar-2025	28 days	2 days	✓	12-Mar-2025	28 days	2 days	✓
Anions and Nutrients : Total Nitrogen by Colourimetry										
Amber glass total (sulfuric acid) SQU DS 1	E366	10-Mar-2025	12-Mar-2025	28 days	2 days	✓	12-Mar-2025	28 days	2 days	✓
Anions and Nutrients : Total Nitrogen by Colourimetry										
Amber glass total (sulfuric acid) SQU US 1	E366	10-Mar-2025	12-Mar-2025	28 days	2 days	✓	12-Mar-2025	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 Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SQU DS 1	E372-U	10-Mar-2025	12-Mar-2025	28 days	2 days	✓	12-Mar-2025	28 days	2 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SQU US 1	E372-U	10-Mar-2025	12-Mar-2025	28 days	2 days	✓	12-Mar-2025	28 days	2 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SQU DS 1	E509	10-Mar-2025	15-Mar-2025	28 days	5 days	✓	15-Mar-2025	28 days	5 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SQU US 1	E509	10-Mar-2025	15-Mar-2025	28 days	5 days	✓	15-Mar-2025	28 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SQU DS 1	E421	10-Mar-2025	12-Mar-2025	180 days	2 days	✓	12-Mar-2025	180 days	2 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SQU US 1	E421	10-Mar-2025	12-Mar-2025	180 days	2 days	✓	12-Mar-2025	180 days	2 days	✓
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
SQU DS 1	EF001	10-Mar-2025	----	----	----		14-Mar-2025	----	4 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
SQU US 1	EF001	10-Mar-2025	----	----	----		14-Mar-2025	----	4 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass - dissolved (field filtered/sulfuric acid)										
SQU DS 1	E358-L	10-Mar-2025	12-Mar-2025	28 days	2 days	✓	12-Mar-2025	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 Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass - dissolved (field filtered/sulfuric acid)										
SQU US 1	E358-L	10-Mar-2025	12-Mar-2025	28 days	2 days	✓	12-Mar-2025	28 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE										
SQU DS 1	E290	10-Mar-2025	12-Mar-2025	14 days	2 days	✓	12-Mar-2025	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE										
SQU US 1	E290	10-Mar-2025	12-Mar-2025	14 days	2 days	✓	12-Mar-2025	14 days	2 days	✓
Physical Tests : TDS by Gravimetry										
HDPE										
SQU DS 1	E162	10-Mar-2025	----	----	----		15-Mar-2025	7 days	5 days	✓
Physical Tests : TDS by Gravimetry										
HDPE										
SQU US 1	E162	10-Mar-2025	----	----	----		15-Mar-2025	7 days	5 days	✓
Physical Tests : TSS by Gravimetry										
HDPE										
SQU DS 1	E160	10-Mar-2025	----	----	----		15-Mar-2025	7 days	5 days	✓
Physical Tests : TSS by Gravimetry										
HDPE										
SQU US 1	E160	10-Mar-2025	----	----	----		15-Mar-2025	7 days	5 days	✓
Speciated Metals : Total Hexavalent Chromium (Cr VI) by IC										
Opaque HDPE - total (sodium hydroxide)										
SQU DS 1	E532	10-Mar-2025	----	----	----		11-Mar-2025	28 days	2 days	✓
Speciated Metals : Total Hexavalent Chromium (Cr VI) by IC										
Opaque HDPE - total (sodium hydroxide)										
SQU US 1	E532	10-Mar-2025	----	----	----		11-Mar-2025	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*	
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SQU DS 1	E508	10-Mar-2025	14-Mar-2025	28 days	4 days	✓	14-Mar-2025	28 days	4 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SQU US 1	E508	10-Mar-2025	14-Mar-2025	28 days	4 days	✓	14-Mar-2025	28 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SQU DS 1	E420	10-Mar-2025	12-Mar-2025	180 days	2 days	✓	13-Mar-2025	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SQU US 1	E420	10-Mar-2025	12-Mar-2025	180 days	2 days	✓	13-Mar-2025	180 days	4 days	✓
Total Sulfides : Total Sulfide by Colourimetry (Automated Flow)										
HDPE total (zinc acetate+sodium hydroxide) SQU DS 1	E395	10-Mar-2025	----	----	----		12-Mar-2025	7 days	2 days	✓
Total Sulfides : Total Sulfide by Colourimetry (Automated Flow)										
HDPE total (zinc acetate+sodium hydroxide) SQU US 1	E395	10-Mar-2025	----	----	----		12-Mar-2025	7 days	2 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			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
TSS by Gravimetry	E160	1910550	1	20	5.0	5.0	✓
TDS by Gravimetry	E162	1910552	1	20	5.0	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	1905797	1	14	7.1	5.0	✓
Chloride in Water by IC	E235.Cl	1905796	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	1905795	1	14	7.1	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1905799	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1905798	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1905800	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1905793	1	20	5.0	5.0	✓
Ammonia by Fluorescence	E298	1905056	1	19	5.2	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1905058	1	10	10.0	5.0	✓
Total Nitrogen by Colourimetry	E366	1905054	1	13	7.6	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1905055	1	17	5.8	5.0	✓
Total Sulfide by Colourimetry (Automated Flow)	E395	1905941	1	7	14.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1905489	2	20	10.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1905530	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1909187	1	20	5.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1910393	1	20	5.0	5.0	✓
Total Hexavalent Chromium (Cr VI) by IC	E532	1905070	1	20	5.0	5.0	✓
Laboratory Control Samples (LCS)							
TSS by Gravimetry	E160	1910550	1	20	5.0	5.0	✓
TDS by Gravimetry	E162	1910552	1	20	5.0	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	1905797	1	14	7.1	5.0	✓
Chloride in Water by IC	E235.Cl	1905796	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	1905795	1	14	7.1	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1905799	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1905798	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1905800	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1905793	1	20	5.0	5.0	✓
Ammonia by Fluorescence	E298	1905056	1	19	5.2	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1905058	1	10	10.0	5.0	✓
Total Nitrogen by Colourimetry	E366	1905054	1	13	7.6	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1905055	1	17	5.8	5.0	✓
Total Sulfide by Colourimetry (Automated Flow)	E395	1905941	1	7	14.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1905489	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1905530	1	20	5.0	5.0	✓

Matrix: **Water**

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

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Total Mercury in Water by CVAAS	E508	1909187	1	20	5.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1910393	1	20	5.0	5.0	✓
Total Hexavalent Chromium (Cr VI) by IC	E532	1905070	1	20	5.0	5.0	✓
Method Blanks (MB)							
TSS by Gravimetry	E160	1910550	1	20	5.0	5.0	✓
TDS by Gravimetry	E162	1910552	1	20	5.0	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	1905797	1	14	7.1	5.0	✓
Chloride in Water by IC	E235.Cl	1905796	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	1905795	1	14	7.1	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1905799	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1905798	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1905800	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1905793	1	20	5.0	5.0	✓
Ammonia by Fluorescence	E298	1905056	1	19	5.2	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1905058	1	10	10.0	5.0	✓
Total Nitrogen by Colourimetry	E366	1905054	1	13	7.6	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1905055	1	17	5.8	5.0	✓
Total Sulfide by Colourimetry (Automated Flow)	E395	1905941	1	7	14.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1905489	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1905530	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1909187	1	20	5.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1910393	1	20	5.0	5.0	✓
Total Hexavalent Chromium (Cr VI) by IC	E532	1905070	1	20	5.0	5.0	✓
Matrix Spikes (MS)							
Bromide in Water by IC (Low Level)	E235.Br-L	1905797	1	14	7.1	5.0	✓
Chloride in Water by IC	E235.Cl	1905796	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	1905795	1	14	7.1	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1905799	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1905798	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1905800	1	20	5.0	5.0	✓
Ammonia by Fluorescence	E298	1905056	1	19	5.2	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1905058	1	10	10.0	5.0	✓
Total Nitrogen by Colourimetry	E366	1905054	1	13	7.6	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1905055	1	17	5.8	5.0	✓
Total Sulfide by Colourimetry (Automated Flow)	E395	1905941	1	7	14.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1905489	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1905530	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1909187	1	20	5.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1910393	1	20	5.0	5.0	✓

Matrix: **Water**

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

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Total Hexavalent Chromium (Cr VI) by IC	E532	1905070	1	20	5.0	5.0	✓

Methodology References and Summaries

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

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
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 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry	E162 ALS Environmental - Vancouver	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Bromide in Water by IC (Low Level)	E235.Br-L 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 CO2. 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 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 methlyene blue colourimetric method. Results expressed "as H2S" if reported represent the maximum possible H2S concentration based on the total sulfide concentration in the sample. The H2S calculation converts Total Sulphide as (S2-) and reports it as Total Sulphide as (H2S)
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.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Vancouver	Water	APHA 2340B	"Hardness (as CaCO3), dissolved" is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 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 CaCO3), from total Ca/Mg" is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 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.
Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Vancouver	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 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.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
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.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **VA25A5231**	Page	: 1 of 17
Client	: Triton Environmental Consultants Ltd.	Laboratory	: ALS Environmental - Vancouver
Contact	:	Account Manager	:
Address	:	Address	:
Telephone	:	Telephone	:
Project	:	Date Samples Received	:
PO	:	Date Analysis Commenced	:
C-O-C number	: ----	Issue Date	:
Sampler	: AR, WB		
Site	: Water Analysis		
Quote number	: VA25-TRIT100-001		
No. of samples received	: 2		
No. of samples analysed	: 2		

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

This Quality Control Report contains the following information:

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

Signatories

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

Signatories	*Position*	*Laboratory Department*
		Vancouver Inorganics, Burnaby, British Columbia
		Vancouver Metals, Burnaby, British Columbia
		Vancouver Metals, Burnaby, British Columbia
		Vancouver Metals, Burnaby, British Columbia
		Vancouver Administration, 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: 1905793)											
VA25A5195-003	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	2.7	2.5	0.2	Diff <2x LOR	----
Physical Tests (QC Lot: 1910550)											
FJ2500739-001	Anonymous	Solids, total suspended [TSS]	----	E160	3.0	mg/L	54.7	57.1	4.29%	20%	----
Physical Tests (QC Lot: 1910552)											
FJ2500739-001	Anonymous	Solids, total dissolved [TDS]	----	E162	20	mg/L	632	620	1.84%	20%	----
Anions and Nutrients (QC Lot: 1905054)											
FJ2500725-001	Anonymous	Nitrogen, total	7727-37-9	E366	1.50	mg/L	7.81	8.83	1.02	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1905055)											
FJ2500725-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.171	0.170	0.504%	20%	----
Anions and Nutrients (QC Lot: 1905056)											
FJ2500725-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.359	0.361	0.657%	20%	----
Anions and Nutrients (QC Lot: 1905795)											
VA25A5195-001	Anonymous	Fluoride	16984-48-8	E235.F	0.020	mg/L	0.403	0.401	0.559%	20%	----
Anions and Nutrients (QC Lot: 1905796)											
VA25A5195-001	Anonymous	Chloride	16887-00-6	E235.Cl	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1905797)											
VA25A5195-001	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: 1905798)											
VA25A5195-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	0.225	0.220	2.38%	20%	----
Anions and Nutrients (QC Lot: 1905799)											
VA25A5195-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1905800)											
VA25A5195-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	176	172	2.07%	20%	----
Organic / Inorganic Carbon (QC Lot: 1905058)											
FJ2500726-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	1.17	1.09	0.08	Diff <2x LOR	----
Total Sulfides (QC Lot: 1905941)											
VA25A5230-001	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: 1905489)											
YL2500116-001	Anonymous	Chromium, total	7440-47-3	E420	0.00250	mg/L	<0.00250	<0.00250	0	Diff <2x LOR	----
YL2500116-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0150	mg/L	<0.0150	<0.0150	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: 1905489) - continued											
YL2500116-001	Anonymous	Antimony, total	7440-36-0	E420	0.00050	mg/L	0.565	0.565	0.110%	20%	----
		Arsenic, total	7440-38-2	E420	0.00050	mg/L	24.4	24.0	1.54%	20%	----
		Barium, total	7440-39-3	E420	0.00050	mg/L	0.0491	0.0478	2.68%	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	0.000250	mg/L	<0.000250	<0.000250	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.050	mg/L	0.329	0.324	0.006	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000250	mg/L	0.000329	0.000283	15.1%	20%	----
		Calcium, total	7440-70-2	E420	0.250	mg/L	342	325	5.18%	20%	----
		Cesium, total	7440-46-2	E420	0.000050	mg/L	0.000492	0.000510	3.69%	20%	----
		Cobalt, total	7440-48-4	E420	0.00050	mg/L	0.0370	0.0358	3.29%	20%	----
		Copper, total	7440-50-8	E420	0.00250	mg/L	0.00740	0.00729	0.00010	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.050	mg/L	0.196	0.202	0.006	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000250	mg/L	0.00397	0.00380	4.22%	20%	----
		Lithium, total	7439-93-2	E420	0.0050	mg/L	0.0319	0.0313	0.0006	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0250	mg/L	107	108	0.741%	20%	----
		Manganese, total	7439-96-5	E420	0.00050	mg/L	0.532	0.519	2.40%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000250	mg/L	0.0176	0.0184	4.15%	20%	----
		Nickel, total	7440-02-0	E420	0.00250	mg/L	0.0400	0.0379	5.32%	20%	----
		Phosphorus, total	7723-14-0	E420	0.250	mg/L	<0.250	<0.250	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.250	mg/L	11.8	11.8	0.0503%	20%	----
		Rubidium, total	7440-17-7	E420	0.00100	mg/L	0.0102	0.00984	3.96%	20%	----
		Selenium, total	7782-49-2	E420	0.000250	mg/L	<0.000250	<0.000250	0	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.50	mg/L	6.27	6.26	0.116%	20%	----
		Silver, total	7440-22-4	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.250	mg/L	185	181	2.19%	20%	----
		Strontium, total	7440-24-6	E420	0.00100	mg/L	4.22	4.38	3.91%	20%	----
		Sulfur, total	7704-34-9	E420	2.50	mg/L	328	330	0.466%	20%	----
		Tellurium, total	13494-80-9	E420	0.00100	mg/L	<0.00100	<0.00100	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00050	mg/L	0.00098	0.00074	0.00024	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00150	mg/L	<0.00150	<0.00150	0	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00050	mg/L	0.00086	0.00086	0.000003	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000050	mg/L	0.00607	0.00597	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: 1905489) - continued											
YL2500116-001	Anonymous	Vanadium, total	7440-62-2	E420	0.00250	mg/L	<0.00250	<0.00250	0	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0150	mg/L	0.115	0.110	0.0047	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00100	mg/L	<0.00100	<0.00100	0	Diff <2x LOR	----
Total Metals (QC Lot: 1909187)											
KS2500806-004	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1905530)											
YL2500116-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0050	mg/L	0.0050	0.0053	0.0003	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00050	mg/L	0.516	0.538	4.34%	20%	----
		Arsenic, dissolved	7440-38-2	E421	0.00050	mg/L	20.9	21.1	0.795%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00050	mg/L	0.0420	0.0420	0.0505%	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	0.000250	mg/L	<0.000250	<0.000250	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.050	mg/L	0.290	0.299	0.009	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000250	mg/L	0.000244	0.000263	7.57%	20%	----
		Calcium, dissolved	7440-70-2	E421	0.250	mg/L	319	328	2.97%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000050	mg/L	0.000476	0.000484	0.000007	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00250	mg/L	<0.00250	<0.00250	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00050	mg/L	0.0313	0.0323	3.29%	20%	----
		Copper, dissolved	7440-50-8	E421	0.00100	mg/L	0.00570	0.00574	0.00005	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.050	mg/L	0.110	0.111	0.001	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000250	mg/L	0.00336	0.00351	4.38%	20%	----
		Lithium, dissolved	7439-93-2	E421	0.0050	mg/L	0.0276	0.0284	0.0008	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0250	mg/L	90.4	90.9	0.553%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00050	mg/L	0.441	0.450	2.10%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000250	mg/L	0.0168	0.0166	1.12%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00250	mg/L	0.0327	0.0334	2.01%	20%	----
		Phosphorus, dissolved	7723-14-0	E421	0.250	mg/L	<0.250	<0.250	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.250	mg/L	10.6	10.9	2.71%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00100	mg/L	0.00913	0.00919	0.00006	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000250	mg/L	0.000335	0.000257	0.000078	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.250	mg/L	5.48	5.54	1.07%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.250	mg/L	160	164	2.58%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00100	mg/L	4.19	4.26	1.85%	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: 1905530) - continued											
YL2500116-001	Anonymous	Sulfur, dissolved	7704-34-9	E421	2.50	mg/L	283	283	0.0176%	20%	----
		Tellurium, dissolved	13494-80-9	E421	0.00100	mg/L	<0.00100	<0.00100	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00150	mg/L	<0.00150	<0.00150	0	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00050	mg/L	0.00080	0.00087	0.00007	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000050	mg/L	0.00528	0.00548	3.75%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00250	mg/L	<0.00250	<0.00250	0	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0050	mg/L	0.101	0.101	0.0900%	20%	----
		Zirconium, dissolved	7440-67-7	E421	0.00100	mg/L	<0.00100	<0.00100	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1910393)											
VA25A5028-003	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Speciated Metals (QC Lot: 1905070)											
KS2500791-001	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: 1905793)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	1.4	----
Physical Tests (QCLot: 1910550)						
Solids, total suspended [TSS]	----	E160	3	mg/L	<3.0	----
Physical Tests (QCLot: 1910552)						
Solids, total dissolved [TDS]	----	E162	10	mg/L	<10	----
Anions and Nutrients (QCLot: 1905054)						
Nitrogen, total	7727-37-9	E366	0.03	mg/L	<0.030	----
Anions and Nutrients (QCLot: 1905055)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1905056)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1905795)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 1905796)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 1905797)						
Bromide	24959-67-9	E235.Br-L	0.05	mg/L	<0.050	----
Anions and Nutrients (QCLot: 1905798)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1905799)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1905800)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Organic / Inorganic Carbon (QCLot: 1905058)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Sulfides (QCLot: 1905941)						
Sulfide, total (as S)	18496-25-8	E395	0.0015	mg/L	<0.0015	----
Total Metals (QCLot: 1905489)						
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: 1905489) - 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: 1909187)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1905530)						
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: 1905530) - 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: 1910393)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Speciated Metals (QCLot: 1905070)						
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: 1905793)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	500 mg/L	105	85.0	115	----
Physical Tests (QCLot: 1910550)									
Solids, total suspended [TSS]	----	E160	3	mg/L	150 mg/L	98.8	85.0	115	----
Physical Tests (QCLot: 1910552)									
Solids, total dissolved [TDS]	----	E162	10	mg/L	1000 mg/L	106	85.0	115	----
Anions and Nutrients (QCLot: 1905054)									
Nitrogen, total	7727-37-9	E366	0.03	mg/L	0.5 mg/L	99.5	75.0	125	----
Anions and Nutrients (QCLot: 1905055)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.05 mg/L	106	80.0	120	----
Anions and Nutrients (QCLot: 1905056)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	110	85.0	115	----
Anions and Nutrients (QCLot: 1905795)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	103	90.0	110	----
Anions and Nutrients (QCLot: 1905796)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	103	90.0	110	----
Anions and Nutrients (QCLot: 1905797)									
Bromide	24959-67-9	E235.Br-L	0.05	mg/L	0.5 mg/L	107	85.0	115	----
Anions and Nutrients (QCLot: 1905798)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	103	90.0	110	----
Anions and Nutrients (QCLot: 1905799)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	99.9	90.0	110	----
Anions and Nutrients (QCLot: 1905800)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	104	90.0	110	----
Organic / Inorganic Carbon (QCLot: 1905058)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	99.9	80.0	120	----
Total Sulfides (QCLot: 1905941)									
Sulfide, total (as S)	18496-25-8	E395	0.0015	mg/L	0.08 mg/L	90.3	80.0	120	----
Total Metals (QCLot: 1905489)									

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: 1905489) - 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	97.2	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	105	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	98.1	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	97.6	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	96.3	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	101	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	103	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	99.8	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	98.6	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	113	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	100	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	109	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	99.2	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	103	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	109	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	89.4	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	98.4	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	102	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	93.1	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	99.2	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	98.6	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	103	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	104	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1905489) - continued									
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	104	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	100	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	96.1	80.0	120	----
Total Metals (QCLot: 1909187)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	98.4	80.0	120	----
Dissolved Metals (QCLot: 1905530)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	98.9	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	101	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	104	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	96.2	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	98.5	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	95.4	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	104	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	96.7	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	104	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	99.4	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	101	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	94.2	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	98.0	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	104	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	98.2	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	98.4	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	102	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	105	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	101	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	102	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 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
Dissolved Metals (QCLot: 1905530) - 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	98.7	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	100	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	99.4	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	98.6	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	103	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	101	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	98.4	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	98.3	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	96.8	80.0	120	----
Speciated Metals (QCLot: 1905070)									
Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.0005	mg/L	0.25 mg/L	101	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: 1905054)										
FJ2500725-002	Anonymous	Nitrogen, total	7727-37-9	E366	ND mg/L	----	ND	70.0	130	----
Anions and Nutrients (QCLot: 1905055)										
FJ2500725-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	ND mg/L	----	ND	70.0	130	----
Anions and Nutrients (QCLot: 1905056)										
FJ2500725-002	Anonymous	Ammonia, total (as N)	7664-41-7	E298	ND mg/L	----	ND	75.0	125	----
Anions and Nutrients (QCLot: 1905795)										
VA25A5195-002	Anonymous	Fluoride	16984-48-8	E235.F	1.01 mg/L	1 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 1905796)										
VA25A5195-002	Anonymous	Chloride	16887-00-6	E235.Cl	106 mg/L	100 mg/L	106	75.0	125	----
Anions and Nutrients (QCLot: 1905797)										
VA25A5195-002	Anonymous	Bromide	24959-67-9	E235.Br-L	0.527 mg/L	0.5 mg/L	105	75.0	125	----
Anions and Nutrients (QCLot: 1905798)										
VA25A5195-002	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.68 mg/L	2.5 mg/L	107	75.0	125	----
Anions and Nutrients (QCLot: 1905799)										
VA25A5195-002	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.513 mg/L	0.5 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1905800)										
VA25A5195-002	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	ND mg/L	----	ND	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1905058)										
VA25A5230-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	5.10 mg/L	5 mg/L	102	70.0	130	----
Total Sulfides (QCLot: 1905941)										
VA25A5231-001	SQU US 1	Sulfide, total (as S)	18496-25-8	E395	0.171 mg/L	0.2 mg/L	85.4	75.0	125	----
Total Metals (QCLot: 1905489)										
YL2500116-002	Anonymous	Aluminum, total	7429-90-5	E420	1.01 mg/L	1 mg/L	101	70.0	130	----
		Antimony, total	7440-36-0	E420	ND mg/L	----	ND	70.0	130	----
		Arsenic, total	7440-38-2	E420	ND mg/L	----	ND	70.0	130	----
		Barium, total	7440-39-3	E420	ND mg/L	----	ND	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.186 mg/L	0.2 mg/L	93.2	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0482 mg/L	0.05 mg/L	96.5	70.0	130	----
		Boron, total	7440-42-8	E420	ND mg/L	----	ND	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0457 mg/L	0.05 mg/L	91.4	70.0	130	----
		Chromium, total	7440-47-3	E420	0.204 mg/L	0.2 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
Total Metals (QCLot: 1905489) - continued										
YL2500116-002	Anonymous	Cobalt, total	7440-48-4	E420	ND mg/L	----	ND	70.0	130	----
		Copper, total	7440-50-8	E420	0.0974 mg/L	0.1 mg/L	97.4	70.0	130	----
		Iron, total	7439-89-6	E420	10.3 mg/L	10 mg/L	103	70.0	130	----
		Lead, total	7439-92-1	E420	0.0942 mg/L	0.1 mg/L	94.2	70.0	130	----
		Lithium, total	7439-93-2	E420	0.456 mg/L	0.5 mg/L	91.1	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	0.0943 mg/L	0.1 mg/L	94.3	70.0	130	----
		Nickel, total	7440-02-0	E420	0.193 mg/L	0.2 mg/L	96.6	70.0	130	----
		Phosphorus, total	7723-14-0	E420	53.7 mg/L	50 mg/L	107	70.0	130	----
		Potassium, total	7440-09-7	E420	ND mg/L	----	ND	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.101 mg/L	0.1 mg/L	101	70.0	130	----
		Selenium, total	7782-49-2	E420	0.210 mg/L	0.2 mg/L	105	70.0	130	----
		Silicon, total	7440-21-3	E420	48.9 mg/L	50 mg/L	97.8	70.0	130	----
		Silver, total	7440-22-4	E420	0.0180 mg/L	0.02 mg/L	89.8	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	0.179 mg/L	0.2 mg/L	89.5	70.0	130	----
		Thallium, total	7440-28-0	E420	0.0190 mg/L	0.02 mg/L	94.9	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0942 mg/L	0.1 mg/L	94.2	70.0	130	----
		Tin, total	7440-31-5	E420	0.0927 mg/L	0.1 mg/L	92.7	70.0	130	----
		Titanium, total	7440-32-6	E420	0.208 mg/L	0.2 mg/L	104	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0971 mg/L	0.1 mg/L	97.1	70.0	130	----
		Uranium, total	7440-61-1	E420	ND mg/L	----	ND	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.511 mg/L	0.5 mg/L	102	70.0	130	----
		Zinc, total	7440-66-6	E420	1.91 mg/L	2 mg/L	95.5	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.187 mg/L	0.2 mg/L	93.4	70.0	130	----
Total Metals (QCLot: 1909187)										
VA25A5164-001	Anonymous	Mercury, total	7439-97-6	E508	ND mg/L	----	ND	70.0	130	----
Dissolved Metals (QCLot: 1905530)										
YL2500116-002	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.989 mg/L	1 mg/L	98.9	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	ND mg/L	----	ND	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	ND mg/L	----	ND	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	----	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.178 mg/L	0.2 mg/L	89.1	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.0438 mg/L	0.05 mg/L	87.6	70.0	130	----
		Boron, dissolved	7440-42-8	E421	ND mg/L	----	ND	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.0196 mg/L	0.02 mg/L	97.9	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0496 mg/L	0.05 mg/L	99.3	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	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: 1905530) - continued										
YL2500116-002	Anonymous	Copper, dissolved	7440-50-8	E421	0.0912 mg/L	0.1 mg/L	91.2	70.0	130	----
		Iron, dissolved	7439-89-6	E421	9.59 mg/L	10 mg/L	95.9	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0930 mg/L	0.1 mg/L	93.0	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.430 mg/L	0.5 mg/L	86.0	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	0.0984 mg/L	0.1 mg/L	98.4	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.183 mg/L	0.2 mg/L	91.5	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	54.0 mg/L	50 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	0.0954 mg/L	0.1 mg/L	95.4	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.203 mg/L	0.2 mg/L	101	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	48.8 mg/L	50 mg/L	97.6	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.0188 mg/L	0.02 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	0.198 mg/L	0.2 mg/L	99.0	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.0181 mg/L	0.02 mg/L	90.6	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0991 mg/L	0.1 mg/L	99.1	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0955 mg/L	0.1 mg/L	95.5	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.201 mg/L	0.2 mg/L	100	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0978 mg/L	0.1 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	0.493 mg/L	0.5 mg/L	98.5	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	1.88 mg/L	2 mg/L	93.8	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.197 mg/L	0.2 mg/L	98.3	70.0	130	----
Dissolved Metals (QCLot: 1910393)										
VA25A5039-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000939 mg/L	0 mg/L	93.9	70.0	130	----
Speciated Metals (QCLot: 1905070)										
KS2500791-002	Anonymous	Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.258 mg/L	0.25 mg/L	103	70.0	130	----

Chain of Custody (COC) / Analytical Request Form

COC Number: 17 -

Affix ALS barcode label here (lab use only)

Page 1 of 1

Canada Toll Free: 1 800 668 9878

www.alsglobal.com

Report To	Contact and company name below will appear on the final report
Company:	Triton Environmental
Contact:	[redacted]
Phone:	
Street:	
City/Province:	
Postal Code:	
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	
Contact:	

Report Format / Distribution

Select Report Format: ☑ ☑ EXCEL ☐ EDD (DIGITAL)

Quality Control (QC) Report with Report ☑ YES ☐ NO

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

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax [redacted]

Email 2

Email 3

Select Invoice

Email 1 or Fax

Email 2

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days): 4 day [P4-20%] ☐ | 3 day [P3-25%] ☐ | 2 day [P2-50%] ☐

EMERGENCY: 1 Business day [E1 - 100%] ☐ | Same Day, Weekend or Statutory holiday [E2 - 200% (Laboratory opening fees may apply)] ☐

Date and Time Required for all E&P TATs:

For tests that can not be performed according to the service level selected, you will be contacted.

Project Information

ALS Account # / Quote #:	VA25-TRIT100-001
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): A5231

ALS Contact: Can Dang

Sampler: [redacted]

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	Total metals + mercury (P)	Dissolved metals + mercury (F/P)	Total hexavalent chromium (P)	Total trivalent chromium (P)	TSS	TDS	Nutrients (ammonia, ammonium, total nitrogen, total phosphorus) (P)	Total sulfide (low) (as H2S), Unionized Sulfide (low) (P)	Anions scan (Br, Cl, F, NO2, NO3, SO4)	General parameters (alkalinity)	DOC (F/P)	SAMPLES ON HOLD	Sample is hazardous (please provide further details)	NUMBER OF CONTAINERS
	WLNG US 1	10-Mar-25	9:51	Water	R	R	R	R	R	R	R	R	R	R	R		N	9
	pH: 7.0 cond: 49 temp: 4.0		↓															
	WLNG DS 1		9:35	Water	R	R	R	R	R	R	R	R	R	R	R		N	9
	pH: 6.9 cond: 52 temp: 4.1		↓															

Environmental Division
Vancouver
Work Order Reference
VA25A5231

Telephone : +1 604 253 4188

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ ☑ NO

Are samples for human consumption/ use? ☐ ☑ NO

Special Instructions / Specify Criteria to add (elect

Triton project # 11964

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐

Ice Packs ☑ Ice Cubes ☐ Custody seal intact Yes ☐ No ☐

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				8			

SHIPMENT RELEASE (client use)

R [redacted]

INITIAL SHIPMENT RECEPTION (lab use only)

Received by: Date: Time:

FINAL SHIPMENT RECEPTION (lab use only)

Received by: [redacted]

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

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

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

BCR Site Receiving Environment Field Notes and Logs

FortisBC Eagle Mountain-Woodfibre Gas Pipeline

Water Discharge Authorization Water Quality Monitoring

2025-3-10-Rysdale-220A3

Project Component:	Tunnel	**Site Name:**	Receiving Environment - Downstream of Discharge
Inspection Date:	03/10/2025	**Location:**	BC Rail Site
Triton QP:	Aaron Rysdale	**Latitude/Longitude:**	49.725398 -123.165034
Temperature(c):	Low 3 High 4	**Permit:**	AE 111824
Weather Conditions:	Overcast	**Ground Conditions:**	Damp

Observations

Time: 09:36:52 **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:**	
Dissolved Metals + Mercury	Yes	**Total Sulfide, Unionized Sulfide**	Yes		
TSS	Yes	**Anions**	Yes		
TDS	Yes	**Total Trivalent Chromium**	Yes	**QA Samples:**	Yes
Nutrients	Yes	**VOC/VPH**	No		
DOC	Yes	**EPH, PAH, LEPH/HEPH**	No		
		Trout LC50	No		

Logger Maintenance

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

Describe Logger Maintenance

Photos

Photo: 1

Location: BCR DS

Description: Looking upstream

Photo: 2

Location: BCR DS

Description: Sample and sonde location

Photos

Photo: 3

Location: BCR DS

Description: Looking downstream

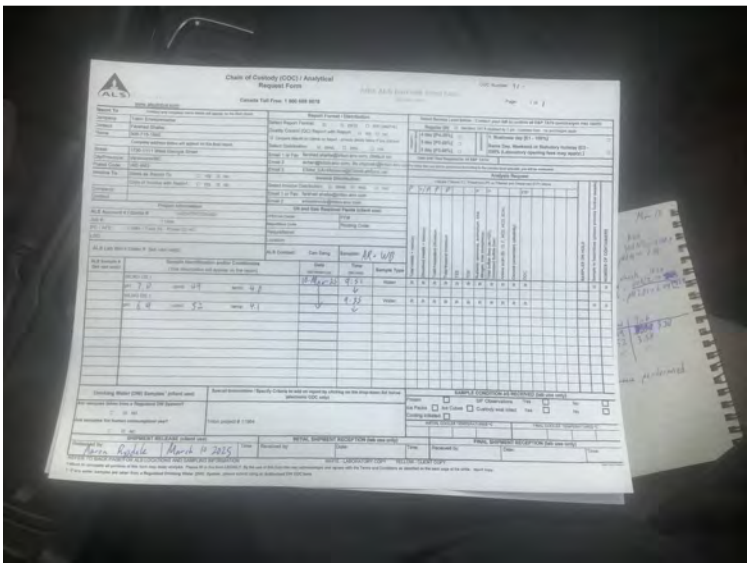


Photo: 4

Location: Lab COC

Description: Sample COC

Photos

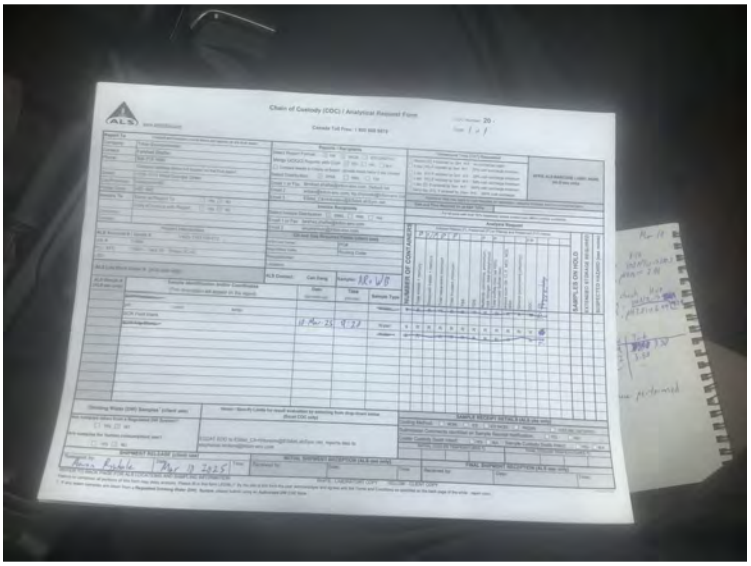


Photo: 5

Location: Lab COC

Description: Field Blank COC

Sign Off

Report Prepared By:	Aaron Rysdale	**Report Reviewed:**	Yes
Report Reviewer:		**Professional(s) of Record:**	
Name:			
Designation:			
Designation Number:			

FortisBC Eagle Mountain-Woodfibre Gas Pipeline

Water Discharge Authorization Water Quality Monitoring

2025-3-10-Rysdale-8899F

Project Component:	Tunnel	**Site Name:**	Receiving Environment - Upstream of Discharge
Inspection Date:	03/10/2025	**Location:**	BC Rail Site
Triton QP:	Aaron Rysdale	**Latitude/Longitude:**	49.726866 -123.163912
Temperature(c):	Low 3 High 4	**Permit:**	AE 111824
Weather Conditions:	Overcast	**Ground Conditions:**	Damp

Observations

Time: 09:51:03 **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:**	
Dissolved Metals + Mercury	Yes	**Total Sulfide, Unionized Sulfide**	Yes		
TSS	Yes	**Anions**	Yes		
TDS	Yes	**Total Trivalent Chromium**	Yes	**QA Samples:**	Yes
Nutrients	Yes	**VOC/VPH**	No		
DOC	Yes	**EPH, PAH, LEPH/HEPH**	No		
		Trout LC50	No		

Logger Maintenance

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

Describe Logger Maintenance

Photos

Photo: 1

Location: BCR US

Description: Looking upstream

Photo: 2

Location: BCR US

Description: Sample and sonde location

Photos

Photo: 3

Location: BCR US

Description: Looking downstream

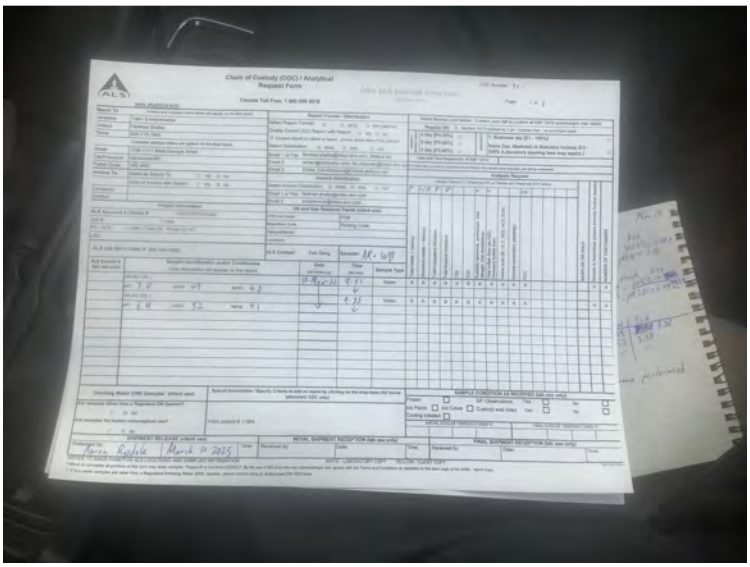


Photo: 4

Location: Lab COC

Description: Sample COC

Photos

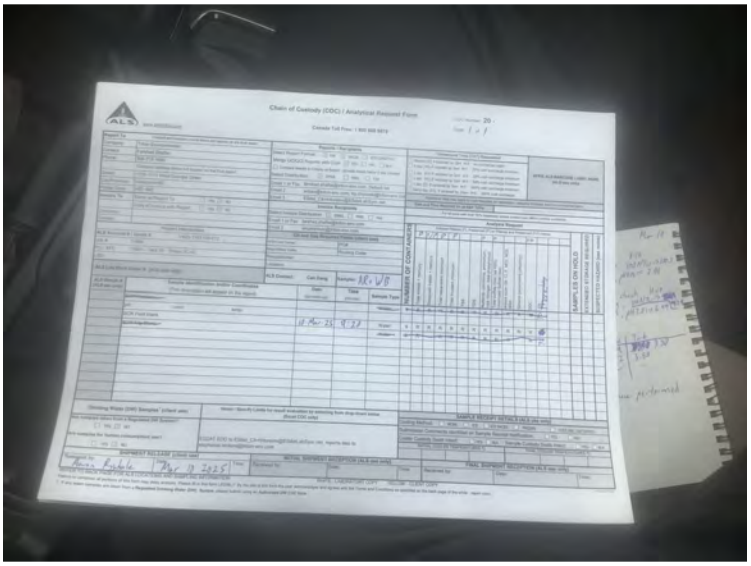


Photo: 5

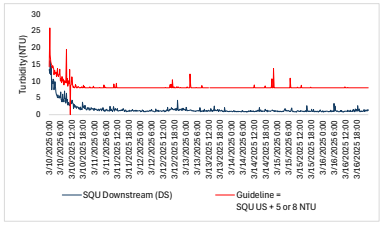
Location: Lab COC

Description: Field Blank COC

Sign Off

Report Prepared By:	Aaron Rysdale	**Report Reviewed:**	Yes
Report Reviewer:		**Professional(s) of Record:**	
Name:			
Designation:			
Designation Number:			

BCR Plant Site	SQU Downstream (DS)							SQU Upstream (US)						
Date	Temperature (c)	Specific Conductivity (µS/cm)	Salinity PSU	pH	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Date	Temperature (c)	Specific Conductivity (µS/cm)	Salinity PSU	pH	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Guideline = SQU US + 5 or 8 NTU
3/10/2025 0:00	3.9	32.2	0.0	6.8	14.1	13.5	3/10/2025 0:00	3.9	33.7	0.0	7.0	15.1	9.3	14.3
3/10/2025 0:15	3.9	32.5	0.0	6.8	14.1	12.3	3/10/2025 0:15	3.9	34.3	0.0	7.0	15.1	21.0	26.0
3/10/2025 0:30	3.8	32.5	0.0	6.8	14.1	16.2	3/10/2025 0:30	3.8	34.1	0.0	7.1	15.0	12.9	17.9
3/10/2025 0:45	3.8	32.7	0.0	6.8	14.1	11.9	3/10/2025 0:45	3.8	34.0	0.0	7.0	15.0	7.8	15.8
3/10/2025 1:00	3.8	32.7	0.0	6.9	14.1	14.5	3/10/2025 1:00	3.8	34.2	0.0	7.0	15.0	7.3	15.3
3/10/2025 1:15	3.8	32.8	0.0	6.9	14.1	7.5	3/10/2025 1:15	3.8	34.0	0.0	7.0	15.0	6.7	14.7
3/10/2025 1:30	3.8	33.0	0.0	6.8	14.1	10.0	3/10/2025 1:30	3.7	34.4	0.0	7.0	15.0	5.9	13.9
3/10/2025 1:45	3.7	33.0	0.0	6.9	14.1	9.2	3/10/2025 1:45	3.7	34.4	0.0	7.0	15.0	6.6	14.6
3/10/2025 2:00	3.7	33.2	0.0	6.7	14.1	10.6	3/10/2025 2:00	3.7	34.7	0.0	7.0	15.0	6.4	14.4
3/10/2025 2:15	3.7	33.2	0.0	6.7	14.1	10.3	3/10/2025 2:15	3.7	34.7	0.0	7.0	15.0	5.6	13.6
3/10/2025 2:30	3.7	33.2	0.0	6.8	14.1	7.4	3/10/2025 2:30	3.7	34.6	0.0	7.1	15.0	3.9	11.9
3/10/2025 2:45	3.7	33.3	0.0	6.8	14.1	8.7	3/10/2025 2:45	3.7	34.6	0.0	7.1	15.0	8.2	13.2
3/10/2025 3:00	3.6	33.4	0.0	6.7	14.1	9.8	3/10/2025 3:00	3.6	34.6	0.0	7.0	15.0	4.5	12.5
3/10/2025 3:15	3.6	33.6	0.0	6.6	14.1	7.8	3/10/2025 3:15	3.6	34.6	0.0	7.0	15.0	4.3	12.3
3/10/2025 3:30	3.6	33.5	0.0	6.8	14.1	6.6	3/10/2025 3:30	3.6	34.4	0.0	7.0	15.0	4.6	12.6
3/10/2025 3:45	3.6	33.5	0.0	6.7	14.1	5.8	3/10/2025 3:45	3.6	34.4	0.0	7.1	15.1	3.4	11.4
3/10/2025 4:00	3.6	33.5	0.0	6.8	14.1	5.7	3/10/2025 4:00	3.6	34.4	0.0	7.1	15.1	4.3	12.3
3/10/2025 4:15	3.6	33.6	0.0	7.0	14.1	5.0	3/10/2025 4:15	3.6	34.4	0.0	7.1	15.1	5.8	13.8
3/10/2025 4:30	3.6	33.6	0.0	7.0	14.1	5.9	3/10/2025 4:30	3.6	34.5	0.0	7.1	15.1	3.7	11.7
3/10/2025 4:45	3.6	33.7	0.0	6.8	14.1	5.0	3/10/2025 4:45	3.5	34.5	0.0	7.1	15.1	3.3	11.3
3/10/2025 5:00	3.6	33.8	0.0	6.9	14.1	5.0	3/10/2025 5:00	3.5	34.6	0.0	7.1	15.1	3.9	11.9
3/10/2025 5:15	3.6	34.1	0.0	6.9	14.1	4.9	3/10/2025 5:15	3.5	35.1	0.0	7.1	15.1	4.3	12.3
3/10/2025 5:30	3.6	34.6	0.0	6.9	14.1	5.6	3/10/2025 5:30	3.5	36.0	0.0	7.1	15.0	5.6	13.6
3/10/2025 5:45	3.6	35.2	0.0	7.0	14.1	5.1	3/10/2025 5:45	3.5	36.2	0.0	7.1	15.0	2.0	10.0
3/10/2025 6:00	3.6	35.3	0.0	6.9	14.1	6.7	3/10/2025 6:00	3.5	36.6	0.0	7.1	15.0	2.1	10.1
3/10/2025 6:15	3.6	35.4	0.0	7.0	14.0	4.6	3/10/2025 6:15	3.5	37.2	0.0	7.1	14.9	2.7	10.7
3/10/2025 6:30	3.6	36.2	0.0	6.8	14.0	4.1	3/10/2025 6:30	3.6	38.6	0.0	7.0	14.8	1.5	9.5
3/10/2025 6:45	3.6	36.5	0.0	6.8	14.0	3.8	3/10/2025 6:45	3.6	38.9	0.0	6.9	14.8	3.3	11.3
3/10/2025 7:00	3.6	36.7	0.0	6.9	14.0	6.1	3/10/2025 7:00	3.6	39.3	0.0	7.0	14.8	2.0	10.0
3/10/2025 7:15	3.6	37.1	0.0	6.9	14.0	3.9	3/10/2025 7:15	3.6	39.5	0.0	7.0	14.8	2.6	10.6
3/10/2025 7:30	3.5	37.0	0.0	6.7	14.0	4.3	3/10/2025 7:30	3.6	39.4	0.0	7.0	14.8	1.7	9.7
3/10/2025 7:45	3.5	37.2	0.0	6.7	14.0	3.8	3/10/2025 7:45	3.6	39.3	0.0	7.0	14.8	0.9	8.9
3/10/2025 8:00	3.5	37.6	0.0	6.8	14.0	7.0	3/10/2025 8:00	3.5	39.5	0.0	7.0	14.8	2.1	10.1
3/10/2025 8:15	3.5	37.3	0.0	6.8	14.0	4.8	3/10/2025 8:15	3.5	39.5	0.0	7.0	14.8	1.6	9.6
3/10/2025 8:30	3.5	37.6	0.0	6.9	13.9	4.7	3/10/2025 8:30	3.5	39.2	0.0	7.0	14.8	1.5	9.5
3/10/2025 8:45	3.6	37.7	0.0	6.7	13.9	3.4	3/10/2025 8:45	3.6	39.4	0.0	7.0	14.8	2.3	10.3
3/10/2025 9:00	3.6	38.1	0.0	6.9	13.9	6.4	3/10/2025 9:00	3.6	40.2	0.0	7.0	14.8	14.5	19.5
3/10/2025 9:15	3.6	38.3	0.0	6.9	13.9	4.0	3/10/2025 9:15	3.6	40.3	0.0	7.0	14.8	1.4	9.4
3/10/2025 9:30	3.6	38.6	0.0	6.7	13.9	4.4	3/10/2025 9:30	3.6	40.5	0.0	7.0	14.8	2.7	10.7
3/10/2025 9:45	3.6	38.4	0.0	6.8	13.9	2.8	3/10/2025 9:45	3.6	40.3	0.0	7.0	14.8	0.5	8.5
3/10/2025 10:00	3.7	39.0	0.0	6.8	13.9	3.6	3/10/2025 10:00	3.7	40.9	0.0	7.0	14.8	1.4	9.4
3/10/2025 10:15	3.7	39.0	0.0	6.9	13.9	3.3	3/10/2025 10:15	3.7	40.8	0.0	7.0	14.8	2.1	10.1
3/10/2025 10:30	3.7	38.9	0.0	6.9	13.9	2.6	3/10/2025 10:30	3.8	40.4	0.0	7.1	14.8	1.2	9.2
3/10/2025 10:45	3.8	38.8	0.0	7.0	14.0	2.8	3/10/2025 10:45	3.8	40.8	0.0	7.0	14.8	5.5	13.5
3/10/2025 11:00	3.8	39.1	0.0	6.9	13.9	4.0	3/10/2025 11:00	3.9	41.1	0.0	7.0	14.8	2.1	0.0
3/10/2025 11:15	3.9	39.3	0.0	6.9	13.9	4.4	3/10/2025 11:15	3.9	41.3	0.0	7.0	14.8	0.7	8.7
3/10/2025 11:30	3.9	39.7	0.0	6.8	13.9	3.4	3/10/2025 11:30	4.0	41.6	0.0	7.0	14.8	1.0	9.0
3/10/2025 11:45	3.9	39.8	0.0	6.7	13.9	3.2	3/10/2025 11:45	4.0	41.4	0.0	7.0	14.8	3.3	11.3
3/10/2025 12:00	4.0	40.0	0.0	6.7	13.9	4.3	3/10/2025 12:00	4.0	41.9	0.0	7.0	14.8	3.2	11.2
3/10/2025 12:15	4.0	39.9	0.0	6.7	13.9	3.4	3/10/2025 12:15	4.0	41.3	0.0	7.0	14.8	0.9	8.9
3/10/2025 12:30	4.0	39.7	0.0	6.9	13.9	3.3	3/10/2025 12:30	4.1	41.4	0.0	7.1	14.8	0.1	8.1
3/10/2025 12:45	4.0	40.0	0.0	6.8	13.9	1.7	3/10/2025 12:45	4.1	42.3	0.0	7.0	14.8	0.4	8.4
3/10/2025 13:00	4.1	40.5	0.0	7.0	13.9	3.0	3/10/2025 13:00	4.1	42.6	0.0	7.0	14.7	0.0	8.0
3/10/2025 13:15	4.1	40.6	0.0	7.0	13.9	2.4	3/10/2025 13:15	4.2	42.3	0.0	7.1	14.7	0.0	8.0
3/10/2025 13:30	4.2	40.5	0.0	7.0	13.9	2.2	3/10/2025 13:30	4.2	42.3	0.0	7.1	14.7	0.2	8.2
3/10/2025 13:45	4.2	40.8	0.0	6.7	13.8	2.6	3/10/2025 13:45	4.3	42.5	0.0	7.1	14.7	0.9	8.9
3/10/2025 14:00	4.3	40.8	0.0	7.0	13.9	2.4	3/10/2025 14:00	4.3	42.4	0.0	7.0	14.7	0.6	8.6
3/10/2025 14:15	4.3	40.8	0.0	6.9	13.8	1.9	3/10/2025 14:15	4.4	42.3	0.0	7.1	14.7	0.0	8.0
3/10/2025 14:30	4.4	40.9	0.0	6.9	13.8	2.1	3/10/2025 14:30	4.5	42.7	0.0	7.1	14.7	0.0	8.0
3/10/2025 14:45	4.5	40.8	0.0	6.8	13.8	2.3	3/10/2025 14:45	4.5	42.8	0.0	7.1	14.6	0.0	8.0
3/10/2025 15:00	4.5	41.3	0.0	6.9	13.8	2.3	3/10/2025 15:00	4.6	43.1	0.0	7.1	14.6	0.2	8.2
3/10/2025 15:15	4.5	41.4	0.0	6.8	13.8	2.1	3/10/2025 15:15	4.6	43.7	0.0	7.1	14.6	0.4	8.4
3/10/2025 15:30	4.5	41.7	0.0	6.9	13.8	1.7	3/10/2025 15:30	4.6	43.6	0.0	7.1	14.6	0.2	8.2
3/10/2025 15:45	4.5	41.7	0.0	6.9	13.8	2.1	3/10/2025 15:45	4.6	44.0	0.0	7.1	14.6	0.0	8.0
3/10/2025 16:00	4.5	42.3	0.0	6.8	13.7	1.7	3/10/2025 16:00	4.6	44.5	0.0	7.1	14.6	0.0	8.0
3/10/2025 16:15	4.5	42.4	0.0	7.1	13.7	1.3	3/10/2025 16:15	4.6	44.8	0.0	7.1	14.6	0.1	8.1
3/10/2025 16:30	4.5	42.1	0.0	6.9	13.7	2.2	3/10/2025 16:30	4.5	44.1	0.0	7.1	14.6	0.0	8.0
3/10/2025 16:45	4.5	42.6	0.0	7.0	13.7	1.5	3/10/2025 16:45	4.5	44.7	0.0	7.1	14.5	0.0	8.0
3/10/2025 17:00	4.4	42.8	0.0	6.9	13.7	1.6	3/10/2025 17:00	4.5	44.7	0.0	7.1	14.5	0.3	8.3
3/10/2025 17:15	4.4	43.0	0.0	6.8	13.7	1.5	3/10/2025 17:15	4.5	45.4	0.0	7.1	14.5	0.2	8.2
3/10/2025 17:30	4.4	43.2	0.0	7.0	13.7	3.6	3/10/2025 17:30	4.5	45.3	0.0	7.1	14.5	0.0	8.0
3/10/2025 17:45	4.4	43.2	0.0	6.9	13.7	2.4	3/10/2025 17:45	4.5	45.2	0.0	7.1	14.5	0.0	8.0
3/10/2025 18:00	4.4	43.2	0.0	6.9	13.7	2.1	3/10/2025 18:00	4.4	45.0	0.0	7.1	14.5	0.8	8.8
3/10/2025 18:15	4.4	43.3	0.0	7.0	13.6	2.5	3/10/2025 18:15	4.4	45.5	0.0	7.0	14.5	0.0	8.0
3/10/2025 18:30	4.4	43.6	0.0	7.0	13.6	1.8	3/10/2025 18:30	4.4	45.8	0.0	7.1	14.5	0.4	8.4
3/10/2025 18:45	4.4	43.7	0.0	6.9	13.6	2.7	3/10/2025 18:45	4.4	45.7	0.0	7.1	14.4	0.0	8.0
3/10/2025 19:00	4.4	43.7	0.0	6.9	13.6	1.8	3/10/2025 19:00	4.4	45.8	0.0	7.1	14.4	0.0	8.0
3/10/2025 19:15	4.4	43.9	0.0	6.8	13.6	1.6	3/10/2025 19:15	4.4	46.2	0.0	7.0	14.4	0.0	8.0
3/10/2025 19:30	4.4	44.0	0.0	7.0	13.6	1.4	3/10/2025 19:30	4.4	46.1	0.0	7.0	14.4	0.0	8.0
3/10/2025 19:45	4.4	44.3	0.0	7.0	13.6	1.3	3/10/2025 19:45	4.4	46.3	0.0	7.0	14.4	0.0	8.0
3/10/2025 20:00	4.4	44.4	0.0	6.6	13.6	2.1	3/10/2025 20:00	4.4	46.4	0.0	7.1	14.4	0.0	8.0
3/10/2025 20:15	4.4	44.6	0.0	7.0	13.5	1.6	3/10/2025 20:15	4.4	46.8	0.0	7.1	14.4	0.0	8.0
3/10/2025 20:30	4.4	44.8	0.0	6.7	13.5	1.6	3/10/2025 20:30	4.4	47.2	0.0	7.1	14.3	0.0	8.0
3/10/2025 20:45	4.4	44.8	0.0	7.0	13.5	2.1	3/10/2025 20:45	4.4	47.1	0.0	7.0	14.3	0.0	8.0
3/10/2025 21:00	4.4	45.0	0.0	7.0	13.5	1.3	3/10/2025 21:00	4.4	47.3	0.0	7.0	14.3	0.0	8.0
3/10/2025 21:15	4.3	45.1	0.0	6.9	13.5	1.6	3/10/2025 21:15	4.3	47.2	0.0	7.0	14.3	0.3	8.3
3/10/2025 21:30	4.3	45.2	0.0	6.9	13.5	1.4	3/10/2025 21:30	4.3	47.8	0.0	7.0	14.3	0.0	8.0
3/10/2025 21:45	4.3	45.5	0.0	6.9	13.5	1.5	3/10/2025 21:45	4.3	47.9	0.0	7.0	14.3	0.0	8.0
3/10/2025 22:00	4.3	45.7	0.0	6.8	13.5	2.1	3/10/2025 22:00	4.3	47.8	0.0	7.0	14.3	0.0	8.0
3/10/2025 22:15	4.3	45.8	0.0	6.8	13.5	1.6	3/10/2025 22:15	4.3	47.8	0.0	7.0	14.3	0.0	8.0
3/10/2025 22:30	4.3	45.9	0.0	6.8	13.5	1.6	3/10/2025 22:30	4.3	48.1	0.0	7.0	14.3	0.0	8.0
3/10/2025 22:45	4.3	46.1	0.0	7.0	13.5	1.8	3/10/2025 22:45	4.3	47.5	0.0	7.1	14.3	0.0	8.0
3/10/2025 23:00	4.3	46.2	0.0	7.0	13.5	1.6	3/10/2025 23:00	4.3	48.5	0.0	7.1	14.3	0.0	8.0
3/10/2025 23:15	4.3	46.3	0.0	6.9	13.4	1.7	3/10/2025 23:15	4.3	48.5	0.0	7.0	14.3	0.5	8.5
3/10/2025 23:30	4.3	45.9	0.0	7.0	13.5	1.2	3/10/2025 23:30	4.3	48.4	0.0	7.0	14.3	0.0	8.0
3/10/2025 23:45	4.3	46.3	0.0	6.8	13.4	1.8	3/10/2025 23:45	4.3	48.9	0.0	7.0	14.3	0.0	8.0
3/11/2025 0:00	4.3	46.1	0.0	7.0	13.5	1.6	3/11/2025 0:00	4.3	49.0	0.0	7.0	14.3	0.0	8.0
3/11/2025 0:15	4.3	46.6	0.0	6.7	13.5	1.5	3/11/2025 0:15	4.3	48.1	0.0	7.0	14.3	0.0	8.0
3/11/2025 0:30	4.3	46.3	0.0	6.6	13.5	1.7	3/11/2025 0:30	4.3	48.2	0.0	7.0	14.3	0.0	8.0
3/11/2025 0:45	4.3	46.8	0.0	6.8	13.4	1.5	3/11/2025 0:45	4.3	48.4	0.0	7.1	14.3	0.0	8.0
3/11/2025 1:00	4.3	46.5	0.0	6.9	13.5	1.4	3/11/2025 1:00	4.2	48.3	0.0	7.0	14.3	0.0	8.0
3/11/2025 1:15	4.2	46.5	0.0	7.0	13.5	1.2	3/11/2025 1:15	4.2	48.4	0.0	7.1	14.3	0.0	8.0
3/11/2025 1:30	4.2	46.5	0.0	6.9	13.5	1.2	3/11/2025 1:30	4.2	48.5	0.0	7.1	14.3	0.0	8.0
3/11/2025 1:45	4.2	46.6	0.0	6.9	13.5	1.5	3/11/2025 1:45	4.2	48.6	0.0	7.1	14.3	0.0	8.0
3/11/2025 2:00	4.2	46.4	0.0	6.8	13.5	1.6	3/11/2025 2:00	4.2	48.3	0.0	7.0	14.3	0.0	8.0
3/11/2025 2:15	4.2	46.6	0.0	7.1	13.5	1.1	3/11/2025 2:15	4.2	48.7	0.0	7.0	14.3	0.0	8.0
3/11/2025 2:30	4.2	46.8	0.0	6.9	13.5	1.2	3/11/2025 2:30	4.2	48.8	0.0	7.0	14.3	0.1	8.1
3/11/2025 2:45	4.2	46.6	0.0	7.0	13.5	1.5	3/11/2025 2:45	4.1	48.0	0.0	7.1	14.3	0.0	8.0
3/11/2025 3:00	4.2	46.8	0.0	7.0	13.5	1.7	3/11/2025 3:00	4.1	48.2	0.0	7.1	14.3	0.0	8.0
3/11/2025 3:15	4.1	46.4	0.0	7.0	13.5	1.7	3/11/2025 3:15	4.1	48.2	0.0	7.1	14.3	0.0	8.0
3/11/2025 3:30	4.1	46.5	0.0	7.0	13.5	1.1	3/11/2025 3:30	4.1	47.3	0.0	7.1	14.3	0.0	8.0



3/11/2025 3:45	4.1	45.7	0.0	6.9	13.5	1.6	3/11/2025 3:45	4.1	46.7	0.0	7.1	14.4	0.0	8.0
3/11/2025 4:00	4.1	45.6	0.0	6.9	13.5	1.5	3/11/2025 4:00	4.0	46.7	0.0	7.1	14.4	0.0	8.0
3/11/2025 4:15	4.1	45.7	0.0	6.8	13.5	2.0	3/11/2025 4:15	4.0	47.2	0.0	7.2	14.4	0.0	8.0
3/11/2025 4:30	4.1	45.9	0.0	7.0	13.5	1.1	3/11/2025 4:30	4.0	47.3	0.0	7.2	14.3	0.0	8.0
3/11/2025 4:45	4.1	46.2	0.0	7.0	13.5	1.4	3/11/2025 4:45	4.0	48.0	0.0	7.1	14.3	0.9	8.9
3/11/2025 5:00	4.0	46.2	0.0	7.1	13.5	1.2	3/11/2025 5:00	4.0	47.5	0.0	7.1	14.4	0.0	8.0
3/11/2025 5:15	4.0	46.1	0.0	7.1	13.5	0.9	3/11/2025 5:15	4.0	47.3	0.0	7.1	14.4	0.0	8.0
3/11/2025 5:30	4.0	46.1	0.0	7.0	13.5	1.3	3/11/2025 5:30	4.0	47.5	0.0	7.1	14.4	0.2	8.2
3/11/2025 5:45	4.0	46.3	0.0	6.8	13.5	1.2	3/11/2025 5:45	4.0	48.0	0.0	7.1	14.4	0.0	8.0
3/11/2025 6:00	4.0	46.7	0.0	6.8	13.5	1.4	3/11/2025 6:00	3.9	48.0	0.0	7.1	14.4	0.0	8.0
3/11/2025 6:15	4.0	46.5	0.0	6.9	13.5	1.5	3/11/2025 6:15	3.9	47.2	0.0	7.2	14.4	0.0	8.0
3/11/2025 6:30	3.9	45.9	0.0	6.8	13.6	1.1	3/11/2025 6:30	3.9	46.8	0.0	7.2	14.4	0.0	8.0
3/11/2025 6:45	3.9	45.8	0.0	7.0	13.6	1.0	3/11/2025 6:45	3.9	47.6	0.0	7.2	14.4	0.0	8.0
3/11/2025 7:00	3.9	46.3	0.0	6.9	13.5	1.1	3/11/2025 7:00	3.9	50.4	0.0	7.1	14.3	0.0	8.0
3/11/2025 7:15	3.9	47.5	0.0	6.8	13.5	1.1	3/11/2025 7:15	3.9	51.5	0.0	7.1	14.2	0.0	8.0
3/11/2025 7:30	3.9	48.3	0.0	7.0	13.5	1.4	3/11/2025 7:30	3.9	51.2	0.0	7.1	14.3	0.0	8.0
3/11/2025 7:45	3.9	48.2	0.0	6.8	13.5	0.9	3/11/2025 7:45	3.9	50.8	0.0	7.1	14.3	0.0	8.0
3/11/2025 8:00	3.9	47.9	0.0	6.9	13.5	2.4	3/11/2025 8:00	3.9	50.4	0.0	7.1	14.3	0.0	8.0
3/11/2025 8:15	3.9	48.3	0.0	7.0	13.5	1.2	3/11/2025 8:15	3.9	51.6	0.0	7.1	14.3	0.0	8.0
3/11/2025 8:30	3.9	49.4	0.0	7.0	13.5	1.7	3/11/2025 8:30	3.9	52.9	0.0	7.0	14.2	0.0	8.0
3/11/2025 8:45	3.9	49.8	0.0	6.9	13.5	1.2	3/11/2025 8:45	3.9	52.5	0.0	7.1	14.2	0.0	8.0
3/11/2025 9:00	3.9	49.6	0.0	7.0	13.5	1.2	3/11/2025 9:00	3.9	52.1	0.0	7.0	14.2	0.0	8.0
3/11/2025 9:15	3.9	49.5	0.0	6.9	13.4	0.9	3/11/2025 9:15	3.9	52.6	0.0	7.0	14.2	0.0	8.0
3/11/2025 9:30	3.9	49.7	0.0	7.0	13.4	1.2	3/11/2025 9:30	3.9	52.5	0.0	7.0	14.2	0.0	8.0
3/11/2025 9:45	3.9	49.9	0.0	6.7	13.4	2.4	3/11/2025 9:45	3.9	52.8	0.0	7.0	14.2	0.0	8.0
3/11/2025 10:00	3.9	50.2	0.0	6.9	13.4	1.9	3/11/2025 10:00	3.9	52.7	0.0	7.0	14.2	1.2	9.2
3/11/2025 10:15	3.9	50.5	0.0	6.9	13.4	1.0	3/11/2025 10:15	3.9	53.1	0.0	7.0	14.3	0.0	8.0
3/11/2025 10:30	3.9	50.3	0.0	6.9	13.5	1.3	3/11/2025 10:30	3.9	52.1	0.0	7.1	14.3	0.0	8.0
3/11/2025 10:45	3.9	50.0	0.0	6.8	13.5	1.8	3/11/2025 10:45	3.9	52.2	0.0	7.0	14.3	0.0	8.0
3/11/2025 11:00	3.9	49.8	0.0	7.0	13.5	1.4	3/11/2025 11:00	3.9	51.4	0.0	7.1	14.4	0.0	8.0
3/11/2025 11:15	3.9	49.5	0.0	7.0	13.5	1.3	3/11/2025 11:15	3.9	51.6	0.0	7.0	14.4	1.4	9.4
3/11/2025 11:30	4.0	49.6	0.0	6.8	13.6	1.3	3/11/2025 11:30	3.9	51.6	0.0	7.0	14.4	0.0	8.0
3/11/2025 11:45	4.0	49.7	0.0	6.8	13.5	1.8	3/11/2025 11:45	4.0	51.5	0.0	7.0	14.4	0.0	8.0
3/11/2025 12:00	4.0	49.7	0.0	6.9	13.5	1.1	3/11/2025 12:00	4.0	51.5	0.0	7.1	14.4	0.0	8.0
3/11/2025 12:15	4.0	49.9	0.0	7.0	13.6	0.9	3/11/2025 12:15	4.0	51.2	0.0	7.0	14.4	0.0	8.0
3/11/2025 12:30	4.1	50.0	0.0	7.0	13.6	1.1	3/11/2025 12:30	4.1	52.5	0.0	7.0	14.4	0.0	8.0
3/11/2025 12:45	4.1	50.0	0.0	7.0	13.6	1.2	3/11/2025 12:45	4.1	51.7	0.0	7.0	14.4	0.0	8.0
3/11/2025 13:00	4.2	49.8	0.0	6.9	13.6	1.2	3/11/2025 13:00	4.2	51.7	0.0	7.1	14.4	0.0	8.0
3/11/2025 13:15	4.2	50.1	0.0	6.9	13.5	1.1	3/11/2025 13:15	4.3	51.8	0.0	7.1	14.4	0.0	8.0
3/11/2025 13:30	4.3	50.2	0.0	6.8	13.5	1.3	3/11/2025 13:30	4.3	52.0	0.0	7.0	14.4	0.0	8.0
3/11/2025 13:45	4.3	50.0	0.0	7.0	13.5	1.3	3/11/2025 13:45	4.3	51.5	0.0	7.0	14.4	0.0	8.0
3/11/2025 14:00	4.3	50.2	0.0	6.9	13.5	1.2	3/11/2025 14:00	4.4	51.8	0.0	7.0	14.4	0.0	8.0
3/11/2025 14:15	4.4	50.1	0.0	7.0	13.5	1.4	3/11/2025 14:15	4.4	51.9	0.0	7.0	14.4	0.0	8.0
3/11/2025 14:30	4.4	49.8	0.0	7.0	13.5	1.2	3/11/2025 14:30	4.5	51.6	0.0	7.1	14.4	0.0	8.0
3/11/2025 14:45	4.5	49.8	0.0	7.0	13.5	1.8	3/11/2025 14:45	4.5	52.6	0.0	7.1	14.4	0.0	8.0
3/11/2025 15:00	4.5	50.0	0.0	7.0	13.5	1.7	3/11/2025 15:00	4.6	51.7	0.0	7.1	14.4	0.0	8.0
3/11/2025 15:15	4.6	49.7	0.0	6.9	13.5	1.2	3/11/2025 15:15	4.6	51.4	0.0	7.1	14.4	0.0	8.0
3/11/2025 15:30	4.6	49.7	0.0	7.1	13.5	0.9	3/11/2025 15:30	4.7	50.9	0.0	7.1	14.4	0.0	8.0
3/11/2025 15:45	4.7	49.4	0.0	7.0	13.5	1.2	3/11/2025 15:45	4.7	50.6	0.0	7.1	14.4	0.0	8.0
3/11/2025 16:00	4.7	49.2	0.0	6.9	13.5	1.1	3/11/2025 16:00	4.7	50.4	0.0	7.1	14.4	0.0	8.0
3/11/2025 16:15	4.7	49.2	0.0	7.0	13.5	1.4	3/11/2025 16:15	4.7	50.3	0.0	7.2	14.4	0.0	8.0
3/11/2025 16:30	4.7	49.4	0.0	6.9	13.5	0.8	3/11/2025 16:30	4.7	51.3	0.0	7.2	14.3	0.0	8.0
3/11/2025 16:45	4.7	50.2	0.0	7.0	13.5	1.0	3/11/2025 16:45	4.7	52.4	0.0	7.1	14.3	0.0	8.0
3/11/2025 17:00	4.6	50.5	0.0	6.9	13.5	0.9	3/11/2025 17:00	4.7	52.4	0.0	7.1	14.3	0.0	8.0
3/11/2025 17:15	4.6	50.9	0.0	6.8	13.4	0.9	3/11/2025 17:15	4.7	53.4	0.0	7.1	14.3	0.0	8.0
3/11/2025 17:30	4.6	51.5	0.0	7.1	13.4	1.1	3/11/2025 17:30	4.7	54.2	0.0	7.1	14.2	0.0	8.0
3/11/2025 17:45	4.6	51.8	0.0	7.1	13.4	1.1	3/11/2025 17:45	4.7	55.3	0.0	7.1	14.2	0.0	8.0
3/11/2025 18:00	4.6	52.6	0.0	7.0	13.4	0.9	3/11/2025 18:00	4.7	55.4	0.0	7.1	14.1	0.0	8.0
3/11/2025 18:15	4.6	52.8	0.0	6.8	13.3	1.3	3/11/2025 18:15	4.7	56.3	0.0	7.1	14.1	0.0	8.0
3/11/2025 18:30	4.6	53.3	0.0	6.7	13.3	1.0	3/11/2025 18:30	4.6	55.4	0.0	7.1	14.1	0.0	8.0
3/11/2025 18:45	4.6	52.7	0.0	7.1	13.3	1.0	3/11/2025 18:45	4.6	55.4	0.0	7.0	14.1	0.0	8.0
3/11/2025 19:00	4.6	52.9	0.0	7.0	13.3	1.1	3/11/2025 19:00	4.6	54.9	0.0	7.0	14.1	0.0	8.0
3/11/2025 19:15	4.6	52.0	0.0	6.9	13.3	1.0	3/11/2025 19:15	4.6	53.8	0.0	7.1	14.1	0.0	8.0
3/11/2025 19:30	4.6	52.2	0.0	7.1	13.3	1.3	3/11/2025 19:30	4.6	54.2	0.0	7.1	14.1	0.0	8.0
3/11/2025 19:45	4.6	52.0	0.0	6.9	13.3	1.5	3/11/2025 19:45	4.6	54.1	0.0	7.0	14.1	0.0	8.0
3/11/2025 20:00	4.6	52.1	0.0	7.1	13.3	1.2	3/11/2025 20:00	4.6	53.8	0.0	7.1	14.1	0.0	8.0
3/11/2025 20:15	4.6	52.2	0.0	7.0	13.2	1.0	3/11/2025 20:15	4.6	54.0	0.0	7.1	14.1	0.0	8.0
3/11/2025 20:30	4.6	52.4	0.0	7.0	13.2	1.0	3/11/2025 20:30	4.6	54.6	0.0	7.1	14.0	0.0	8.0
3/11/2025 20:45	4.6	52.2	0.0	7.0	13.2	1.2	3/11/2025 20:45	4.6	54.5	0.0	7.1	14.0	0.0	8.0
3/11/2025 21:00	4.6	52.5	0.0	6.9	13.2	1.1	3/11/2025 21:00	4.6	54.6	0.0	7.1	14.0	0.0	8.0
3/11/2025 21:15	4.6	52.4	0.0	6.8	13.2	0.9	3/11/2025 21:15	4.6	55.4	0.0	7.1	14.0	0.0	8.0
3/11/2025 21:30	4.6	52.5	0.0	6.9	13.2	1.3	3/11/2025 21:30	4.6	55.1	0.0	7.0	14.0	0.0	8.0
3/11/2025 21:45	4.6	52.6	0.0	7.1	13.2	1.0	3/11/2025 21:45	4.6	55.2	0.0	7.0	14.0	0.0	8.0
3/11/2025 22:00	4.6	52.8	0.0	7.0	13.2	1.2	3/11/2025 22:00	4.6	54.9	0.0	7.1	14.0	0.0	8.0
3/11/2025 22:15	4.6	52.9	0.0	7.0	13.2	1.0	3/11/2025 22:15	4.6	54.6	0.0	7.1	14.0	0.0	8.0
3/11/2025 22:30	4.6	53.0	0.0	7.1	13.2	1.1	3/11/2025 22:30	4.6	55.2	0.0	7.1	14.0	0.0	8.0
3/11/2025 22:45	4.6	52.9	0.0	7.1	13.2	1.1	3/11/2025 22:45	4.6	55.8	0.0	7.0	13.9	0.0	8.0
3/11/2025 23:00	4.6	52.9	0.0	7.1	13.2	1.1	3/11/2025 23:00	4.6	55.4	0.0	7.1	14.0	0.0	8.0
3/11/2025 23:15	4.6	52.9	0.0	7.1	13.2	1.1	3/11/2025 23:15	4.6	54.6	0.0	7.1	14.0	0.0	8.0
3/11/2025 23:30	4.6	53.0	0.0	7.0	13.2	1.2	3/11/2025 23:30	4.6	55.1	0.0	7.1	14.0	0.0	8.0
3/11/2025 23:45	4.6	53.0	0.0	6.9	13.2	1.2	3/11/2025 23:45	4.6	55.3	0.0	7.1	14.0	0.0	8.0
3/12/2025 0:00	4.6	53.2	0.0	7.1	13.2	0.8	3/12/2025 0:00	4.6	55.0	0.0	7.1	14.0	0.0	8.0
3/12/2025 0:15	4.6	53.2	0.0	6.7	13.2	1.0	3/12/2025 0:15	4.6	55.7	0.0	7.1	13.9	0.0	8.0
3/12/2025 0:30	4.6	53.2	0.0	7.0	13.2	0.9	3/12/2025 0:30	4.5	54.9	0.0	7.1	14.0	0.0	8.0
3/12/2025 0:45	4.5	53.0	0.0	6.9	13.2	0.9	3/12/2025 0:45	4.5	54.6	0.0	7.0	14.0	0.0	8.0
3/12/2025 1:00	4.5	53.1	0.0	7.1	13.2	1.3	3/12/2025 1:00	4.5	54.6	0.0	7.1	14.0	0.0	8.0
3/12/2025 1:15	4.5	53.0	0.0	6.9	13.2	1.1	3/12/2025 1:15	4.5	54.6	0.0	7.1	14.0	0.0	8.0
3/12/2025 1:30	4.5	52.9	0.0	6.9	13.2	1.2	3/12/2025 1:30	4.5	55.1	0.0	7.1	14.0	0.0	8.0
3/12/2025 1:45	4.5	52.9	0.0	6.9	13.2	0.8	3/12/2025 1:45	4.5	55.2	0.0	7.0	14.0	0.0	8.0
3/12/2025 2:00	4.5	53.1	0.0	7.0	13.2	0.9	3/12/2025 2:00	4.5	54.9	0.0	7.1	14.0	0.0	8.0
3/12/2025 2:15	4.5	53.0	0.0	7.1	13.2	0.8	3/12/2025 2:15	4.5	54.7	0.0	7.1	14.0	0.0	8.0
3/12/2025 2:30	4.5	53.1	0.0	7.0	13.2	1.0	3/12/2025 2:30	4.5	54.9	0.0	7.1	14.0	0.0	8.0
3/12/2025 2:45	4.5	53.2	0.0	7.1	13.2	0.8	3/12/2025 2:45	4.4	54.6	0.0	7.1	14.0	0.0	8.0
3/12/2025 3:00	4.5	53.1	0.0	7.0	13.2	1.0	3/12/2025 3:00	4.5	55.1	0.0	7.1	14.0	0.0	8.0
3/12/2025 3:15	4.4	53.0	0.0	6.9	13.2	1.0	3/12/2025 3:15	4.4	54.7	0.0	7.1	14.0	0.0	8.0
3/12/2025 3:30	4.4	52.8	0.0	7.0	13.2	1.0	3/12/2025 3:30	4.4	54.3	0.0	7.1	14.0	0.0	8.0
3/12/2025 3:45	4.4	53.1	0.0	6.9	13.2	1.1	3/12/2025 3:45	4.4	54.6	0.0	7.1	14.0	0.0	8.0
3/12/2025 4:00	4.4	52.4	0.0	6.9	13.2	0.9	3/12/2025 4:00	4.4	53.4	0.0	7.1	14.0	0.0	8.0
3/12/2025 4:15	4.4	52.1	0.0	7.0	13.2	1.0	3/12/2025 4:15	4.4	53.3	0.0	7.1	14.1	0.0	8.0
3/12/2025 4:30	4.4	51.9	0.0	7.0	13.2	1.0	3/12/2025 4:30	4.4	53.0	0.0	7.2	14.1	0.0	8.0
3/12/2025 4:45	4.4	51.8	0.0	6.9	13.3	1.1	3/12/2025 4:45	4.3	52.9	0.0	7.2	14.1	0.0	8.0
3/12/2025 5:00	4.4	51.7	0.0	7.0	13.3	1.2	3/12/2025 5:00	4.3	52.9	0.0	7.2	14.1	0.0	8.0
3/12/2025 5:15	4.3	51.6	0.0	7.0	13.2	0.9	3/12/2025 5:15	4.3	53.0	0.0	7.2	14.1	0.0	8.0
3/12/2025 5:30	4.3	51.6	0.0	7.1	13.2	1.1	3/12/2025 5:30	4.3	52.8	0.0	7.2	14.1	0.0	8.0
3/12/2025 5:45	4.3	51.7	0.0	6.9	13.2	1.5	3/12/2025 5:45	4.3	52.8	0.0	7.2	14.1	0.0	8.0
3/12/2025 6:00	4.3	51.4	0.0	6.8	13.3	1.1	3/12/2025 6:00	4.3	52.3	0.0	7.2	14.1	0.0	8.0
3/12/2025 6:15	4.3	51.3	0.0	7.0	13.3	1.0	3/12/2025 6:15	4.3	52.9	0.0	7.2	14.1	0.0	8.0
3/12/2025 6:30	4.3	51.3	0.0	7.1	13.3	1.0	3/12/2025 6:30	4.3	53.5	0.0	7.2	14.1	0.0	8.0
3/12/2025 6:45	4.3	52.0	0.0	7.1	13.3	1.0	3/12/2025 6:45	4.3	54.3	0.0	7.2	14.1	0.0	8.0
3/12/2025 7:00	4.3	51.9	0.0	7.0	13.3	0.9	3/12/2025 7:00	4.2	52.5	0.0	7.2	14.1	0.0	8.0
3/12/2025 7:15	4.2	51.4	0.0	7.1	13.3	0.8	3/12/2025 7:15	4.2	53.4	0.0	7.2	14.1	0.0	8.0
3/12/2025 7:30	4.2	52.0	0.0	7.1	13.3	0.8	3/12/2025 7:30	4.3	55.3	0.0	7.1	14.0	0.0	8.0
3/12/2025 7:45	4.3	53.3	0.0	6.9	13.2	0.9	3/12/2025 7:45	4.3	57.4	0.0	7.1	13.9	0.0	8.0
3/12/2025 8:00	4.3	53.4	0.0	6.8	13.2	1.7	3/12/2025 8:00	4.3	56.2	0.0	7.1	13.9	0.0	8.0
3/12/2025 8:15	4.2	53.2	0.0	6.8	13.2	1.0	3/12/2025 8:15	4.3	56.6	0.0	7.1	14.0	0.0	8.0

3/12/2025 8:30	4.2	53.5	0.0	7.0	13.2	1.0	3/12/2025 8:30	4.2	56.4	0.0	7.1	14.0	0.0	8.0
3/12/2025 8:45	4.2	54.0	0.0	6.9	13.2	1.1	3/12/2025 8:45	4.2	56.9	0.0	7.1	14.0	0.0	8.0
3/12/2025 9:00	4.2	54.3	0.0	7.0	13.2	1.0	3/12/2025 9:00	4.3	57.7	0.0	7.1	14.0	0.0	8.0
3/12/2025 9:15	4.2	54.6	0.0	7.1	13.2	1.2	3/12/2025 9:15	4.3	58.3	0.0	7.1	14.0	0.0	8.0
3/12/2025 9:30	4.2	54.7	0.0	7.0	13.2	0.9	3/12/2025 9:30	4.2	57.6	0.0	7.1	14.0	0.0	8.0
3/12/2025 9:45	4.2	54.8	0.0	6.9	13.2	0.9	3/12/2025 9:45	4.2	57.7	0.0	7.1	14.0	0.0	8.0
3/12/2025 10:00	4.2	55.0	0.0	7.0	13.2	1.1	3/12/2025 10:00	4.3	58.6	0.0	7.1	13.9	0.0	8.0
3/12/2025 10:15	4.2	55.1	0.0	7.1	13.2	1.1	3/12/2025 10:15	4.3	58.6	0.0	7.0	13.9	0.0	8.0
3/12/2025 10:30	4.2	55.3	0.0	7.1	13.2	1.0	3/12/2025 10:30	4.2	58.0	0.0	7.0	14.0	0.0	8.0
3/12/2025 10:45	4.2	54.8	0.0	7.0	13.2	1.1	3/12/2025 10:45	4.2	57.1	0.0	7.1	14.0	0.0	8.0
3/12/2025 11:00	4.2	54.1	0.0	7.1	13.2	0.9	3/12/2025 11:00	4.2	56.3	0.0	7.1	14.1	0.0	8.0
3/12/2025 11:15	4.2	54.4	0.0	7.0	13.3	1.0	3/12/2025 11:15	4.2	57.2	0.0	7.1	14.1	0.0	8.0
3/12/2025 11:30	4.2	54.3	0.0	7.0	13.3	1.0	3/12/2025 11:30	4.2	56.2	0.0	7.1	14.1	0.0	8.0
3/12/2025 11:45	4.2	54.0	0.0	7.0	13.3	1.1	3/12/2025 11:45	4.2	56.4	0.0	7.1	14.1	0.0	8.0
3/12/2025 12:00	4.2	53.9	0.0	7.0	13.3	1.2	3/12/2025 12:00	4.2	55.3	0.0	7.1	14.1	0.0	8.0
3/12/2025 12:15	4.2	53.2	0.0	7.1	13.3	1.0	3/12/2025 12:15	4.2	55.3	0.0	7.1	14.2	0.0	8.0
3/12/2025 12:30	4.2	53.6	0.0	7.0	13.3	1.1	3/12/2025 12:30	4.2	55.2	0.0	7.1	14.2	0.0	8.0
3/12/2025 12:45	4.2	53.3	0.0	7.1	13.3	0.8	3/12/2025 12:45	4.2	55.4	0.0	7.1	14.1	0.0	8.0
3/12/2025 13:00	4.2	53.4	0.0	6.9	13.3	1.1	3/12/2025 13:00	4.2	55.9	0.0	7.1	14.1	0.0	8.0
3/12/2025 13:15	4.2	54.0	0.0	6.8	13.3	0.9	3/12/2025 13:15	4.2	56.4	0.0	7.1	14.1	0.0	8.0
3/12/2025 13:30	4.2	53.9	0.0	7.1	13.3	1.1	3/12/2025 13:30	4.2	56.4	0.0	7.1	14.1	0.0	8.0
3/12/2025 13:45	4.2	54.1	0.0	7.0	13.3	1.4	3/12/2025 13:45	4.2	56.2	0.0	7.1	14.2	0.0	8.0
3/12/2025 14:00	4.2	53.9	0.0	6.9	13.3	1.2	3/12/2025 14:00	4.2	56.7	0.0	7.1	14.1	0.0	8.0
3/12/2025 14:15	4.2	54.0	0.0	7.0	13.3	2.1	3/12/2025 14:15	4.2	56.5	0.0	7.1	14.2	0.0	8.0
3/12/2025 14:30	4.2	53.6	0.0	7.0	13.3	1.0	3/12/2025 14:30	4.2	56.0	0.0	7.1	14.2	0.0	8.0
3/12/2025 14:45	4.2	53.7	0.0	7.0	13.3	1.2	3/12/2025 14:45	4.2	56.6	0.0	7.1	14.1	0.0	8.0
3/12/2025 15:00	4.2	53.7	0.0	7.0	13.3	1.1	3/12/2025 15:00	4.2	56.3	0.0	7.1	14.1	0.0	8.0
3/12/2025 15:15	4.2	53.4	0.0	6.8	13.3	1.5	3/12/2025 15:15	4.2	57.1	0.0	7.1	14.1	0.0	8.0
3/12/2025 15:30	4.2	53.1	0.0	6.9	13.4	1.6	3/12/2025 15:30	4.2	55.5	0.0	7.1	14.2	1.0	9.0
3/12/2025 15:45	4.2	53.1	0.0	6.9	13.4	1.4	3/12/2025 15:45	4.2	55.4	0.0	7.1	14.2	0.1	8.1
3/12/2025 16:00	4.2	53.0	0.0	6.9	13.4	1.7	3/12/2025 16:00	4.2	54.7	0.0	7.1	14.2	1.0	9.0
3/12/2025 16:15	4.2	52.2	0.0	6.9	13.4	2.0	3/12/2025 16:15	4.2	53.3	0.0	7.2	14.2	0.0	8.0
3/12/2025 16:30	4.2	51.6	0.0	6.9	13.4	1.6	3/12/2025 16:30	4.2	52.7	0.0	7.2	14.2	0.0	8.0
3/12/2025 16:45	4.2	51.2	0.0	6.9	13.4	1.7	3/12/2025 16:45	4.2	52.6	0.0	7.2	14.2	2.4	10.4
3/12/2025 17:00	4.2	51.9	0.0	6.9	13.4	1.6	3/12/2025 17:00	4.2	54.8	0.0	7.2	14.2	0.0	8.0
3/12/2025 17:15	4.2	52.7	0.0	7.0	13.4	1.4	3/12/2025 17:15	4.3	55.1	0.0	7.2	14.2	0.0	8.0
3/12/2025 17:30	4.2	53.2	0.0	7.0	13.4	1.4	3/12/2025 17:30	4.3	55.4	0.0	7.1	14.2	0.2	8.2
3/12/2025 17:45	4.2	53.2	0.0	6.8	13.4	1.6	3/12/2025 17:45	4.3	55.4	0.0	7.2	14.2	0.0	8.0
3/12/2025 18:00	4.3	53.3	0.0	7.0	13.4	1.4	3/12/2025 18:00	4.3	56.6	0.0	7.1	14.1	0.0	8.0
3/12/2025 18:15	4.3	54.5	0.0	6.8	13.3	1.7	3/12/2025 18:15	4.3	57.7	0.0	7.1	14.1	0.0	8.0
3/12/2025 18:30	4.3	54.1	0.0	7.1	13.3	1.3	3/12/2025 18:30	4.3	57.0	0.0	7.1	14.1	0.0	8.0
3/12/2025 18:45	4.3	54.5	0.0	7.0	13.3	1.2	3/12/2025 18:45	4.3	57.6	0.0	7.1	14.1	0.0	8.0
3/12/2025 19:00	4.3	54.8	0.0	6.8	13.3	1.9	3/12/2025 19:00	4.3	57.3	0.0	7.1	14.1	0.3	8.3
3/12/2025 19:15	4.3	54.9	0.0	6.9	13.3	1.3	3/12/2025 19:15	4.3	58.4	0.0	7.1	14.0	0.2	8.2
3/12/2025 19:30	4.3	55.0	0.0	7.0	13.3	4.2	3/12/2025 19:30	4.3	58.4	0.0	7.1	14.0	0.0	8.0
3/12/2025 19:45	4.2	55.0	0.0	7.1	13.3	1.3	3/12/2025 19:45	4.3	58.2	0.0	7.0	14.0	0.3	8.3
3/12/2025 20:00	4.2	55.1	0.0	7.0	13.2	1.2	3/12/2025 20:00	4.3	57.1	0.0	7.1	14.0	0.1	8.1
3/12/2025 20:15	4.2	53.7	0.0	7.1	13.3	1.2	3/12/2025 20:15	4.2	56.4	0.0	7.1	14.1	0.0	8.0
3/12/2025 20:30	4.2	53.7	0.0	6.9	13.3	1.6	3/12/2025 20:30	4.2	55.3	0.0	7.0	14.1	0.0	8.0
3/12/2025 20:45	4.2	53.1	0.0	6.9	13.3	1.4	3/12/2025 20:45	4.2	54.5	0.0	7.1	14.1	0.0	8.0
3/12/2025 21:00	4.2	52.7	0.0	6.9	13.3	1.5	3/12/2025 21:00	4.2	54.6	0.0	7.1	14.1	0.1	8.1
3/12/2025 21:15	4.2	53.3	0.0	7.1	13.3	1.4	3/12/2025 21:15	4.2	55.2	0.0	7.1	14.1	0.0	8.0
3/12/2025 21:30	4.2	52.9	0.0	6.9	13.3	1.7	3/12/2025 21:30	4.2	54.7	0.0	7.1	14.1	0.0	8.0
3/12/2025 21:45	4.1	52.6	0.0	6.7	13.3	1.2	3/12/2025 21:45	4.1	54.2	0.0	7.1	14.1	0.0	8.0
3/12/2025 22:00	4.1	52.5	0.0	6.8	13.3	1.8	3/12/2025 22:00	4.1	53.8	0.0	7.1	14.1	0.0	8.0
3/12/2025 22:15	4.1	52.4	0.0	6.9	13.3	1.4	3/12/2025 22:15	4.1	54.1	0.0	7.1	14.1	0.0	8.0
3/12/2025 22:30	4.1	52.4	0.0	6.8	13.3	1.8	3/12/2025 22:30	4.1	53.7	0.0	7.1	14.1	0.0	8.0
3/12/2025 22:45	4.1	52.0	0.0	6.9	13.3	1.4	3/12/2025 22:45	4.1	54.2	0.0	7.1	14.1	0.0	8.0
3/12/2025 23:00	4.1	52.1	0.0	6.8	13.3	1.6	3/12/2025 23:00	4.1	54.3	0.0	7.1	14.1	0.0	8.0
3/12/2025 23:15	4.1	51.8	0.0	7.0	13.3	1.4	3/12/2025 23:15	4.1	53.7	0.0	7.1	14.1	0.0	8.0
3/12/2025 23:30	4.1	52.1	0.0	6.8	13.3	1.4	3/12/2025 23:30	4.1	53.4	0.0	7.1	14.1	0.0	8.0
3/12/2025 23:45	4.1	52.0	0.0	7.0	13.3	1.2	3/12/2025 23:45	4.1	54.1	0.0	7.1	14.1	0.0	8.0
3/13/2025 0:00	4.1	51.8	0.0	6.9	13.3	2.1	3/13/2025 0:00	4.1	54.1	0.0	7.1	14.1	0.0	8.0
3/13/2025 0:15	4.1	51.6	0.0	6.8	13.3	1.5	3/13/2025 0:15	4.0	53.3	0.0	7.1	14.1	0.0	8.0
3/13/2025 0:30	4.0	51.4	0.0	7.0	13.3	1.1	3/13/2025 0:30	4.0	52.9	0.0	7.1	14.1	0.3	8.3
3/13/2025 0:45	4.0	51.3	0.0	7.0	13.3	1.2	3/13/2025 0:45	4.0	52.8	0.0	7.1	14.1	0.0	8.0
3/13/2025 1:00	4.0	51.5	0.0	7.0	13.3	1.2	3/13/2025 1:00	4.0	53.3	0.0	7.1	14.1	0.0	8.0
3/13/2025 1:15	4.0	51.4	0.0	6.9	13.3	1.2	3/13/2025 1:15	4.0	52.8	0.0	7.1	14.1	0.0	8.0
3/13/2025 1:30	4.0	51.0	0.0	7.0	13.3	1.2	3/13/2025 1:30	4.0	52.7	0.0	7.1	14.1	0.0	8.0
3/13/2025 1:45	4.0	51.1	0.0	6.9	13.3	1.3	3/13/2025 1:45	4.0	52.4	0.0	7.1	14.2	0.0	8.0
3/13/2025 2:00	4.0	51.1	0.0	7.0	13.3	1.2	3/13/2025 2:00	4.0	52.4	0.0	7.1	14.2	4.1	12.1
3/13/2025 2:15	4.0	51.1	0.0	6.9	13.3	1.4	3/13/2025 2:15	4.0	52.6	0.0	7.1	14.2	0.8	8.8
3/13/2025 2:30	4.0	50.9	0.0	7.0	13.3	1.4	3/13/2025 2:30	3.9	52.1	0.0	7.1	14.2	0.0	8.0
3/13/2025 2:45	4.0	51.0	0.0	7.0	13.3	1.2	3/13/2025 2:45	3.9	52.2	0.0	7.1	14.1	0.0	8.0
3/13/2025 3:00	4.0	50.9	0.0	7.1	13.3	1.1	3/13/2025 3:00	3.9	52.2	0.0	7.1	14.2	0.0	8.0
3/13/2025 3:15	4.0	50.9	0.0	7.0	13.3	1.1	3/13/2025 3:15	3.9	52.4	0.0	7.1	14.1	0.0	8.0
3/13/2025 3:30	4.0	51.1	0.0	6.9	13.3	1.2	3/13/2025 3:30	3.9	52.3	0.0	7.1	14.2	0.0	8.0
3/13/2025 3:45	4.0	50.9	0.0	7.0	13.3	1.0	3/13/2025 3:45	3.9	51.9	0.0	7.1	14.2	0.0	8.0
3/13/2025 4:00	3.9	50.6	0.0	7.1	13.3	1.1	3/13/2025 4:00	3.9	51.9	0.0	7.1	14.1	0.0	8.0
3/13/2025 4:15	3.9	50.7	0.0	6.9	13.3	1.0	3/13/2025 4:15	3.9	51.8	0.0	7.1	14.2	0.0	8.0
3/13/2025 4:30	3.9	50.6	0.0	7.0	13.3	1.0	3/13/2025 4:30	3.9	51.5	0.0	7.2	14.2	0.0	8.0
3/13/2025 4:45	3.9	50.3	0.0	7.0	13.3	1.1	3/13/2025 4:45	3.8	51.0	0.0	7.2	14.2	0.0	8.0
3/13/2025 5:00	3.9	50.1	0.0	7.1	13.3	0.9	3/13/2025 5:00	3.8	51.5	0.0	7.2	14.2	0.0	8.0
3/13/2025 5:15	3.9	50.5	0.0	6.9	13.3	1.0	3/13/2025 5:15	3.8	51.4	0.0	7.2	14.2	0.1	8.1
3/13/2025 5:30	3.9	50.4	0.0	7.0	13.3	1.1	3/13/2025 5:30	3.8	50.8	0.0	7.2	14.2	0.0	8.0
3/13/2025 5:45	3.9	50.1	0.0	7.0	13.3	1.2	3/13/2025 5:45	3.8	50.7	0.0	7.2	14.2	0.0	8.0
3/13/2025 6:00	3.8	49.9	0.0	6.9	13.4	1.1	3/13/2025 6:00	3.8	50.6	0.0	7.2	14.2	0.0	8.0
3/13/2025 6:15	3.8	50.0	0.0	6.9	13.4	1.1	3/13/2025 6:15	3.8	50.6	0.0	7.2	14.2	0.0	8.0
3/13/2025 6:30	3.8	50.0	0.0	7.1	13.3	1.2	3/13/2025 6:30	3.8	50.7	0.0	7.2	14.2	0.0	8.0
3/13/2025 6:45	3.8	50.0	0.0	7.0	13.4	1.0	3/13/2025 6:45	3.8	50.8	0.0	7.2	14.2	0.0	8.0
3/13/2025 7:00	3.8	49.9	0.0	7.0	13.4	1.1	3/13/2025 7:00	3.7	51.2	0.0	7.2	14.2	0.0	8.0
3/13/2025 7:15	3.8	50.2	0.0	7.0	13.4	2.0	3/13/2025 7:15	3.7	51.9	0.0	7.2	14.2	0.0	8.0
3/13/2025 7:30	3.8	50.5	0.0	7.1	13.4	0.8	3/13/2025 7:30	3.7	51.9	0.0	7.2	14.2	0.0	8.0
3/13/2025 7:45	3.8	50.7	0.0	6.9	13.3	1.1	3/13/2025 7:45	3.7	52.4	0.0	7.1	14.2	0.0	8.0
3/13/2025 8:00	3.8	50.8	0.0	6.9	13.4	1.0	3/13/2025 8:00	3.8	53.6	0.0	7.1	14.1	0.0	8.0
3/13/2025 8:15	3.8	51.4	0.0	6.9	13.3	0.9	3/13/2025 8:15	3.8	54.9	0.0	7.1	14.0	0.7	8.7
3/13/2025 8:30	3.8	52.8	0.0	6.8	13.3	1.1	3/13/2025 8:30	3.8	57.2	0.0	7.1	14.0	0.0	8.0
3/13/2025 8:45	3.8	54.2	0.0	6.8	13.2	1.0	3/13/2025 8:45	3.9	58.2	0.0	7.1	14.0	0.0	8.0
3/13/2025 9:00	3.9	54.4	0.0	6.9	13.2	1.2	3/13/2025 9:00	3.9	57.5	0.0	7.1	14.0	0.0	8.0
3/13/2025 9:15	3.9	54.7	0.0	7.0	13.2	0.9	3/13/2025 9:15	3.9	58.4	0.0	7.0	14.0	0.0	8.0
3/13/2025 9:30	3.9	55.2	0.0	7.0	13.2	1.5	3/13/2025 9:30	4.0	60.0	0.0	7.0	13.9	0.0	8.0
3/13/2025 9:45	4.0	56.7	0.0	7.0	13.1	1.0	3/13/2025 9:45	4.0	60.5	0.0	7.0	13.8	0.0	8.0
3/13/2025 10:00	4.0	56.3	0.0	6.9	13.1	1.1	3/13/2025 10:00	4.1	58.6	0.0	7.0	13.9	0.0	8.0
3/13/2025 10:15	4.1	55.4	0.0	6.9	13.1	1.0	3/13/2025 10:15	4.1	58.4	0.0	7.0	13.9	0.0	8.0
3/13/2025 10:30	4.1	54.6	0.0	7.0	13.1	1.0	3/13/2025 10:30	4.1	56.0	0.0	7.1	14.0	0.0	8.0
3/13/2025 10:45	4.2	53.6	0.0	7.0	13.2	1.2	3/13/2025 10:45	4.2	55.7	0.0	7.0	14.0	0.0	8.0
3/13/2025 11:00	4.3	53.7	0.0	7.0	13.1	0.9	3/13/2025 11:00	4.3	56.3	0.0	7.0	13.9	0.0	8.0
3/13/2025 11:15	4.4	53.8	0.0	7.0	13.1	1.0	3/13/2025 11:15	4.4	55.6	0.0	7.0	14.0	0.0	8.0
3/13/2025 11:30	4.4	53.2	0.0	7.0	13.1	1.2	3/13/2025 11:30	4.5	55.0	0.0	7.1	13.9	0.0	8.0
3/13/2025 11:45	4.5	53.1	0.0	7.0	13.1	1.3	3/13/2025 11:45	4.6	54.8	0.0	7.0	13.9	0.0	8.0
3/13/2025 12:00	4.6	53.1	0.0	7.0	13.1	0.9	3/13/2025 12:00	4.7	71.3	0.0	7.0	13.9		
3/13/2025 12:15	4.7	53.0	0.0	6.9	13.1	1.1	3/13/2025 12:15	4.7	58.8	0.0	7.1	13.9		
3/13/2025 12:30	4.7	53.0	0.0	7.0	13.1	1.0	3/13/2025 12:30	4.7	55.0	0.0	7.1	13.9	0.0	8.0
3/13/2025 12:45	4.7	53.2	0.0	7.0	13.1	0.9	3/13/2025 12:45	4.8	55.5	0.0	7.0	13.9	0.0	8.0
3/13/2025 13:00	4.8	53.1	0.0	7.0	13.1	1.7	3/13/2025 13:00	4.8	55.2	0.0	7.1	13.9	0.0	8.0
3/13/2025 13:15	4.8	52.9	0.0	7.0	13.1	1.0	3/13/2025 13:15	4.8	55.0	0.0	7.1	13.9	0.0	8.0

3/13/2025 13:30	4.8	53.0	0.0	7.0	13.1	1.3	3/13/2025 13:30	4.8	55.5	0.0	7.1	13.9	0.0	8.0
3/13/2025 13:45	4.8	53.0	0.0	7.0	13.1	1.1	3/13/2025 13:45	4.7	54.9	0.0	7.1	13.9	0.0	8.0
3/13/2025 14:00	4.7	52.1	0.0	7.0	13.1	0.9	3/13/2025 14:00	4.7	54.1	0.0	7.1	13.9	0.0	8.0
3/13/2025 14:15	4.7	52.2	0.0	6.9	13.1	1.3	3/13/2025 14:15	4.7	54.3	0.0	7.1	14.0	0.0	8.0
3/13/2025 14:30	4.8	52.2	0.0	7.0	13.1	1.1	3/13/2025 14:30	4.8	54.5	0.0	7.1	13.9	0.0	8.0
3/13/2025 14:45	4.8	52.2	0.0	7.0	13.1	2.5	3/13/2025 14:45	4.8	54.5	0.0	7.1	14.0	0.0	8.0
3/13/2025 15:00	4.9	52.3	0.0	7.0	13.1	1.1	3/13/2025 15:00	4.8	53.8	0.0	7.1	14.0	0.0	8.0
3/13/2025 15:15	4.9	51.7	0.0	7.0	13.1	1.3	3/13/2025 15:15	4.9	54.8	0.0	7.1	14.0	0.0	8.0
3/13/2025 15:30	4.9	52.0	0.0	7.0	13.1	1.4	3/13/2025 15:30	5.0	53.9	0.0	7.1	14.0	0.0	8.0
3/13/2025 15:45	5.0	51.3	0.0	7.1	13.1	1.1	3/13/2025 15:45	5.0	53.4	0.0	7.1	14.0	0.0	8.0
3/13/2025 16:00	5.0	50.8	0.0	6.9	13.1	1.1	3/13/2025 16:00	5.0	52.8	0.0	7.1	14.0	0.0	8.0
3/13/2025 16:15	5.0	50.7	0.0	6.9	13.1	1.2	3/13/2025 16:15	5.0	53.1	0.0	7.1	14.0	0.0	8.0
3/13/2025 16:30	5.0	50.7	0.0	6.7	13.1	1.5	3/13/2025 16:30	5.0	51.8	0.0	7.1	14.0	0.0	8.0
3/13/2025 16:45	5.0	50.0	0.0	6.9	13.2	1.0	3/13/2025 16:45	5.1	51.8	0.0	7.1	14.0	0.0	8.0
3/13/2025 17:00	5.1	50.1	0.0	7.0	13.1	0.9	3/13/2025 17:00	5.1	54.2	0.0	7.1	13.9	0.0	8.0
3/13/2025 17:15	5.1	51.2	0.0	6.9	13.1	1.5	3/13/2025 17:15	5.1	53.2	0.0	7.1	14.0	0.0	8.0
3/13/2025 17:30	5.0	50.5	0.0	7.0	13.1	1.1	3/13/2025 17:30	5.0	52.0	0.0	7.1	14.0	0.0	8.0
3/13/2025 17:45	5.0	49.8	0.0	6.9	13.2	1.0	3/13/2025 17:45	5.0	51.3	0.0	7.2	14.0	0.0	8.0
3/13/2025 18:00	5.0	49.6	0.0	7.0	13.2	1.0	3/13/2025 18:00	4.9	51.4	0.0	7.2	14.0	0.0	8.0
3/13/2025 18:15	4.9	49.8	0.0	6.9	13.2	1.1	3/13/2025 18:15	4.9	52.6	0.0	7.2	14.0	0.0	8.0
3/13/2025 18:30	4.9	50.5	0.0	7.0	13.2	1.3	3/13/2025 18:30	4.9	54.1	0.0	7.1	14.0	0.0	8.0
3/13/2025 18:45	4.9	50.9	0.0	6.8	13.2	1.2	3/13/2025 18:45	4.9	54.0	0.0	7.2	14.0	0.0	8.0
3/13/2025 19:00	4.8	51.1	0.0	7.0	13.2	0.9	3/13/2025 19:00	4.8	54.9	0.0	7.2	14.0	0.0	8.0
3/13/2025 19:15	4.8	52.6	0.0	7.0	13.1	1.0	3/13/2025 19:15	4.8	56.4	0.0	7.1	13.9	0.0	8.0
3/13/2025 19:30	4.8	53.2	0.0	7.0	13.1	1.0	3/13/2025 19:30	4.8	57.3	0.0	7.1	13.9	0.0	8.0
3/13/2025 19:45	4.8	54.1	0.0	7.0	13.1	0.8	3/13/2025 19:45	4.8	59.0	0.0	7.1	13.9	0.0	8.0
3/13/2025 20:00	4.8	54.9	0.0	6.9	13.1	0.9	3/13/2025 20:00	4.8	59.6	0.0	7.1	13.8	0.0	8.0
3/13/2025 20:15	4.8	55.4	0.0	6.9	13.1	2.0	3/13/2025 20:15	4.8	58.7	0.0	7.0	13.9	0.0	8.0
3/13/2025 20:30	4.8	55.7	0.0	7.0	13.1	0.9	3/13/2025 20:30	4.8	58.7	0.0	7.1	13.9	0.0	8.0
3/13/2025 20:45	4.7	54.6	0.0	7.1	13.1	0.9	3/13/2025 20:45	4.7	56.8	0.0	7.1	13.9	0.0	8.0
3/13/2025 21:00	4.7	54.7	0.0	7.1	13.1	1.0	3/13/2025 21:00	4.7	56.4	0.0	7.1	13.9	0.0	8.0
3/13/2025 21:15	4.7	54.0	0.0	7.0	13.1	1.0	3/13/2025 21:15	4.7	56.6	0.0	7.1	13.9	0.0	8.0
3/13/2025 21:30	4.7	54.5	0.0	7.0	13.1	0.9	3/13/2025 21:30	4.6	56.7	0.0	7.1	13.9	0.0	8.0
3/13/2025 21:45	4.6	54.4	0.0	6.9	13.1	1.0	3/13/2025 21:45	4.6	56.5	0.0	7.1	13.9	0.0	8.0
3/13/2025 22:00	4.6	55.0	0.0	7.1	13.1	0.9	3/13/2025 22:00	4.6	57.1	0.0	7.1	13.9	0.0	8.0
3/13/2025 22:15	4.6	54.6	0.0	7.1	13.1	0.9	3/13/2025 22:15	4.6	56.9	0.0	7.1	14.0	0.0	8.0
3/13/2025 22:30	4.6	55.1	0.0	7.1	13.1	0.8	3/13/2025 22:30	4.5	56.3	0.0	7.1	14.0	0.0	8.0
3/13/2025 22:45	4.6	54.7	0.0	7.1	13.2	1.0	3/13/2025 22:45	4.5	56.8	0.0	7.1	14.0	0.0	8.0
3/13/2025 23:00	4.6	54.9	0.0	7.0	13.1	0.9	3/13/2025 23:00	4.5	57.1	0.0	7.1	13.9	0.0	8.0
3/13/2025 23:15	4.6	54.8	0.0	7.0	13.2	0.9	3/13/2025 23:15	4.5	57.0	0.0	7.1	14.0	0.0	8.0
3/13/2025 23:30	4.5	55.1	0.0	7.1	13.2	1.0	3/13/2025 23:30	4.5	57.1	0.0	7.1	14.0	0.0	8.0
3/13/2025 23:45	4.5	54.8	0.0	6.9	13.2	1.0	3/13/2025 23:45	4.5	57.8	0.0	7.1	14.0	0.0	8.0
3/14/2025 0:00	4.5	55.1	0.0	7.1	13.2	0.9	3/14/2025 0:00	4.5	57.0	0.0	7.1	14.0	0.0	8.0
3/14/2025 0:15	4.5	55.2	0.0	7.1	13.2	0.8	3/14/2025 0:15	4.5	57.8	0.0	7.1	14.0	0.0	8.0
3/14/2025 0:30	4.5	55.0	0.0	7.0	13.2	0.9	3/14/2025 0:30	4.4	56.7	0.0	7.1	14.0	0.0	8.0
3/14/2025 0:45	4.5	55.0	0.0	7.0	13.2	0.9	3/14/2025 0:45	4.4	57.4	0.0	7.1	14.0	0.0	8.0
3/14/2025 1:00	4.5	55.0	0.0	7.0	13.2	1.2	3/14/2025 1:00	4.4	56.8	0.0	7.1	14.0	0.0	8.0
3/14/2025 1:15	4.4	55.1	0.0	7.1	13.2	1.1	3/14/2025 1:15	4.4	57.2	0.0	7.1	14.0	0.0	8.0
3/14/2025 1:30	4.4	54.9	0.0	7.0	13.2	0.8	3/14/2025 1:30	4.3	57.4	0.0	7.1	14.0	0.0	8.0
3/14/2025 1:45	4.4	55.1	0.0	7.1	13.2	0.9	3/14/2025 1:45	4.3	56.8	0.0	7.1	14.0	0.0	8.0
3/14/2025 2:00	4.3	55.0	0.0	7.0	13.2	1.0	3/14/2025 2:00	4.3	57.1	0.0	7.1	14.0	0.0	8.0
3/14/2025 2:15	4.3	54.9	0.0	7.1	13.2	0.8	3/14/2025 2:15	4.3	56.4	0.0	7.1	14.1	0.0	8.0
3/14/2025 2:30	4.3	55.0	0.0	7.1	13.2	0.9	3/14/2025 2:30	4.3	56.9	0.0	7.1	14.0	0.0	8.0
3/14/2025 2:45	4.3	54.9	0.0	7.1	13.2	0.8	3/14/2025 2:45	4.2	57.5	0.0	7.1	14.0	0.0	8.0
3/14/2025 3:00	4.3	55.0	0.0	7.0	13.2	0.9	3/14/2025 3:00	4.2	57.2	0.0	7.1	14.0	0.0	8.0
3/14/2025 3:15	4.3	55.0	0.0	7.0	13.2	1.0	3/14/2025 3:15	4.2	56.8	0.0	7.1	14.1	0.0	8.0
3/14/2025 3:30	4.3	55.0	0.0	7.1	13.2	0.8	3/14/2025 3:30	4.2	56.8	0.0	7.1	14.1	0.0	8.0
3/14/2025 3:45	4.2	54.9	0.0	7.0	13.2	0.9	3/14/2025 3:45	4.2	56.5	0.0	7.1	14.1	0.0	8.0
3/14/2025 4:00	4.2	55.2	0.0	7.0	13.2	0.9	3/14/2025 4:00	4.1	56.5	0.0	7.1	14.1	0.0	8.0
3/14/2025 4:15	4.2	54.9	0.0	7.1	13.3	0.9	3/14/2025 4:15	4.1	56.6	0.0	7.1	14.1	0.0	8.0
3/14/2025 4:30	4.2	54.8	0.0	7.0	13.3	0.9	3/14/2025 4:30	4.1	56.5	0.0	7.1	14.1	0.0	8.0
3/14/2025 4:45	4.2	54.7	0.0	7.1	13.3	0.8	3/14/2025 4:45	4.1	56.0	0.0	7.2	14.1	0.0	8.0
3/14/2025 5:00	4.1	54.6	0.0	7.1	13.3	0.8	3/14/2025 5:00	4.1	56.5	0.0	7.2	14.1	0.0	8.0
3/14/2025 5:15	4.1	54.6	0.0	7.1	13.3	0.8	3/14/2025 5:15	4.0	55.6	0.0	7.2	14.1	0.0	8.0
3/14/2025 5:30	4.1	54.1	0.0	7.1	13.3	1.2	3/14/2025 5:30	4.0	55.5	0.0	7.2	14.2	0.0	8.0
3/14/2025 5:45	4.1	54.2	0.0	7.0	13.3	0.9	3/14/2025 5:45	4.0	55.8	0.0	7.2	14.2	0.0	8.0
3/14/2025 6:00	4.1	54.2	0.0	6.8	13.3	1.0	3/14/2025 6:00	4.0	55.1	0.0	7.2	14.2	0.0	8.0
3/14/2025 6:15	4.1	53.8	0.0	7.1	13.3	0.8	3/14/2025 6:15	4.0	55.0	0.0	7.2	14.2	0.0	8.0
3/14/2025 6:30	4.0	54.0	0.0	7.0	13.3	0.8	3/14/2025 6:30	4.0	55.1	0.0	7.2	14.2	0.0	8.0
3/14/2025 6:45	4.0	54.0	0.0	7.1	13.3	0.9	3/14/2025 6:45	3.9	56.8	0.0	7.2	14.2	0.0	8.0
3/14/2025 7:00	4.0	54.8	0.0	6.9	13.3	0.8	3/14/2025 7:00	3.9	56.2	0.0	7.2	14.2	0.0	8.0
3/14/2025 7:15	4.0	54.5	0.0	6.9	13.3	0.9	3/14/2025 7:15	3.9	55.7	0.0	7.2	14.2	0.0	8.0
3/14/2025 7:30	4.0	54.1	0.0	6.9	13.4	0.9	3/14/2025 7:30	3.9	56.2	0.0	7.2	14.2	0.0	8.0
3/14/2025 7:45	3.9	54.6	0.0	7.1	13.4	0.7	3/14/2025 7:45	3.9	57.1	0.0	7.2	14.2	0.0	8.0
3/14/2025 8:00	3.9	55.4	0.0	6.9	13.3	0.9	3/14/2025 8:00	3.9	59.0	0.0	7.2	14.1	0.0	8.0
3/14/2025 8:15	3.9	56.0	0.0	6.9	13.3	0.8	3/14/2025 8:15	3.9	59.3	0.0	7.1	14.1	0.0	8.0
3/14/2025 8:30	3.9	56.1	0.0	6.9	13.3	0.8	3/14/2025 8:30	3.9	59.5	0.0	7.1	14.1	0.0	8.0
3/14/2025 8:45	3.9	56.5	0.0	7.0	13.3	1.0	3/14/2025 8:45	3.9	59.3	0.0	7.1	14.2	0.0	8.0
3/14/2025 9:00	3.9	57.1	0.0	7.0	13.3	0.9	3/14/2025 9:00	3.9	61.5	0.0	7.1	14.1	0.0	8.0
3/14/2025 9:15	3.9	58.3	0.0	6.8	13.3	1.0	3/14/2025 9:15	3.9	62.3	0.0	7.1	14.1	0.0	8.0
3/14/2025 9:30	4.0	58.1	0.0	7.0	13.3	1.0	3/14/2025 9:30	3.9	61.0	0.0	7.1	14.2	0.0	8.0
3/14/2025 9:45	4.0	58.3	0.0	7.0	13.3	0.9	3/14/2025 9:45	4.0	63.8	0.0	7.1	14.1	0.0	8.0
3/14/2025 10:00	4.0	59.8	0.0	7.0	13.3	1.2	3/14/2025 10:00	4.0	63.0	0.0	7.1	14.1	0.0	8.0
3/14/2025 10:15	4.1	59.5	0.0	7.1	13.3	0.9	3/14/2025 10:15	4.1	62.2	0.0	7.1	14.1	0.0	8.0
3/14/2025 10:30	4.1	58.3	0.0	7.1	13.3	0.9	3/14/2025 10:30	4.1	60.7	0.0	7.1	14.2	0.0	8.0
3/14/2025 10:45	4.1	57.2	0.0	7.0	13.4	1.0	3/14/2025 10:45	4.1	58.9	0.0	7.1	14.2	0.0	8.0
3/14/2025 11:00	4.1	56.7	0.0	7.1	13.4	0.9	3/14/2025 11:00	4.1	59.2	0.0	7.1	14.2	0.0	8.0
3/14/2025 11:15	4.2	56.8	0.0	7.0	13.4	1.1	3/14/2025 11:15	4.2	58.5	0.0	7.1	14.2	0.0	8.0
3/14/2025 11:30	4.2	56.8	0.0	6.9	13.4	0.9	3/14/2025 11:30	4.3	59.3	0.0	7.1	14.2	0.0	8.0
3/14/2025 11:45	4.3	56.9	0.0	7.1	13.4	0.8	3/14/2025 11:45	4.3	59.0	0.0	7.1	14.3	0.9	8.9
3/14/2025 12:00	4.3	56.9	0.0	7.0	13.4	0.9	3/14/2025 12:00	4.4	58.9	0.0	7.1	14.2	0.0	8.0
3/14/2025 12:15	4.4	56.7	0.0	7.1	13.4	0.9	3/14/2025 12:15	4.5	59.0	0.0	7.2	14.2	0.0	8.0
3/14/2025 12:30	4.5	56.5	0.0	7.1	13.4	0.9	3/14/2025 12:30	4.6	58.1	0.0	7.1	14.3	0.0	8.0
3/14/2025 12:45	4.6	56.7	0.0	6.8	13.4	1.0	3/14/2025 12:45	4.7	58.9	0.0	7.1	14.2	0.0	8.0
3/14/2025 13:00	4.7	56.6	0.0	7.0	13.4	0.8	3/14/2025 13:00	4.8	58.7	0.0	7.1	14.2	0.0	8.0
3/14/2025 13:15	4.8	56.4	0.0	6.9	13.4	1.0	3/14/2025 13:15	4.9	58.6	0.0	7.2	14.2	0.0	8.0
3/14/2025 13:30	4.9	56.6	0.0	6.9	13.4	1.0	3/14/2025 13:30	4.9	58.0	0.0	7.2	14.3	0.0	8.0
3/14/2025 13:45	4.9	56.6	0.0	7.0	13.4	1.3	3/14/2025 13:45	5.0	58.3	0.0	7.1	14.2	0.0	8.0
3/14/2025 14:00	5.0	56.5	0.0	6.9	13.4	1.0	3/14/2025 14:00	5.1	58.3	0.0	7.1	14.2	0.0	8.0
3/14/2025 14:15	5.0	56.9	0.0	7.0	13.4	1.0	3/14/2025 14:15	5.1	58.6	0.0	7.1	14.2	0.0	8.0
3/14/2025 14:30	5.0	56.6	0.0	7.0	13.4	2.0	3/14/2025 14:30	5.1	58.5	0.0	7.2	14.2	0.0	8.0
3/14/2025 14:45	5.0	56.4	0.0	7.1	13.4	0.9	3/14/2025 14:45	5.1	58.3	0.0	7.2	14.2	0.0	8.0
3/14/2025 15:00	5.1	56.6	0.0	7.1	13.4	1.2	3/14/2025 15:00	5.1	59.4	0.0	7.1	14.2	0.0	8.0
3/14/2025 15:15	5.1	56.6	0.0	7.0	13.4	1.4	3/14/2025 15:15	5.1	58.5	0.0	7.2	14.2	0.0	8.0
3/14/2025 15:30	5.1	56.7	0.0	7.1	13.4	0.9	3/14/2025 15:30	5.1	58.9	0.0	7.1	14.2	0.0	8.0
3/14/2025 15:45	5.1	56.5	0.0	7.0	13.4	1.0	3/14/2025 15:45	5.1	58.7	0.0	7.2	14.2	0.0	8.0
3/14/2025 16:00	5.1	56.4	0.0	6.9	13.4	0.9	3/14/2025 16:00	5.1	58.6	0.0	7.2	14.2	0.0	8.0
3/14/2025 16:15	5.1	56.5	0.0	6.9	13.4	1.1	3/14/2025 16:15	5.1	58.5	0.0	7.2	14.2	0.0	8.0
3/14/2025 16:30	5.1	56.4	0.0	7.0	13.4	1.0	3/14/2025 16:30	5.1	58.6	0.0	7.2	14.2	0.0	8.0
3/14/2025 16:45	5.1	56.2	0.0	7.1	13.4	1.0	3/14/2025 16:45	5.1	59.1	0.0	7.2	14.2	0.0	8.0
3/14/2025 17:00	5.1	56.6	0.0	7.1	13.4	0.9	3/14/2025 17:00	5.1	58.2	0.0	7.2	14.2	0.0	8.0
3/14/2025 17:15	5.1	56.5	0.0	7.2	13.4	0.9	3/14/2025 17:15	5.0	58.3	0.0	7.2	14.2	0.0	8.0
3/14/2025 17:30	5.0	56.9	0.0	7.2	13.4	1.5	3/14/2025 17:30	5.0	59.0	0.0	7.2	14.2	0.5	8.5
3/14/2025 17:45	5.0	57.0	0.0	6.9	13.4	1.2	3/14/2025 17:45	5.0	58.2	0.0	7.3	14.2	0.0	8.0
3/14/2025 18:00	4.9	56.3	0.0	7.0	13.4	1.1	3/14/2025 18:00	4.9	57.3	0.0	7.2	14.3	0.0	8.0
3/14/2025 18:15	4.9	56.1	0.0	7.1	13.4	1.0	3/14/2025 18:15	4.9	57.2	0.0	7.3	14.3	0.0	8.0

3/14/2025 18:30	4.9	56.2	0.0	7.0	13.4	1.2	3/14/2025 18:30	4.8	57.7	0.0	7.3	14.3	0.0	8.0
3/14/2025 18:45	4.9	56.6	0.0	7.1	13.4	0.8	3/14/2025 18:45	4.8	58.5	0.0	7.3	14.2	0.0	8.0
3/14/2025 19:00	4.8	57.2	0.0	7.1	13.4	1.1	3/14/2025 19:00	4.8	59.3	0.0	7.3	14.2	0.0	8.0
3/14/2025 19:15	4.8	57.6	0.0	7.0	13.4	1.0	3/14/2025 19:15	4.8	60.6	0.0	7.2	14.2	0.0	8.0
3/14/2025 19:30	4.8	58.7	0.0	7.0	13.3	1.1	3/14/2025 19:30	4.8	60.9	0.0	7.2	14.1	0.0	8.0
3/14/2025 19:45	4.8	58.8	0.0	7.0	13.3	1.0	3/14/2025 19:45	4.8	61.8	0.0	7.2	14.1	0.0	8.0
3/14/2025 20:00	4.8	59.2	0.0	7.2	13.3	1.0	3/14/2025 20:00	4.8	62.4	0.0	7.2	14.1	0.0	8.0
3/14/2025 20:15	4.8	59.7	0.0	7.1	13.2	0.9	3/14/2025 20:15	4.8	63.0	0.0	7.2	14.0	0.0	8.0
3/14/2025 20:30	4.8	60.1	0.0	6.9	13.2	1.1	3/14/2025 20:30	4.7	62.9	0.0	7.2	14.0	0.0	8.0
3/14/2025 20:45	4.8	60.7	0.0	7.0	13.2		3/14/2025 20:45	4.8	64.2	0.0	7.2	13.9	0.0	8.0
3/14/2025 21:00	4.8	60.8	0.0	7.1	13.2	1.1	3/14/2025 21:00	4.7	63.8	0.0	7.1	13.9	2.7	10.7
3/14/2025 21:15	4.8	60.8	0.0	6.9	13.1	1.4	3/14/2025 21:15	4.7	64.2	0.0	7.1	13.9	0.0	8.0
3/14/2025 21:30	4.8	60.9	0.0	7.1	13.1	1.2	3/14/2025 21:30	4.7	62.4	0.0	7.1	14.0	0.0	8.0
3/14/2025 21:45	4.7	60.2	0.0	7.0	13.1	1.2	3/14/2025 21:45	4.7	62.7	0.0	7.1	13.9	0.0	8.0
3/14/2025 22:00	4.7	59.7	0.0	7.1	13.1	1.0	3/14/2025 22:00	4.7	61.6	0.0	7.1	14.0	5.7	13.7
3/14/2025 22:15	4.7	59.3	0.0	7.0	13.2	1.1	3/14/2025 22:15	4.7	61.0	0.0	7.1	14.0	0.0	8.0
3/14/2025 22:30	4.7	59.4	0.0	7.1	13.1	0.9	3/14/2025 22:30	4.7	61.5	0.0	7.1	14.0	0.0	8.0
3/14/2025 22:45	4.7	59.4	0.0	7.1	13.1	1.2	3/14/2025 22:45	4.6	60.7	0.0	7.2	14.0	0.0	8.0
3/14/2025 23:00	4.7	59.5	0.0	7.1	13.2	1.0	3/14/2025 23:00	4.6	61.3	0.0	7.1	14.0	0.0	8.0
3/14/2025 23:15	4.7	59.5	0.0	7.1	13.1	0.9	3/14/2025 23:15	4.6	60.9	0.0	7.2	14.0	0.0	8.0
3/14/2025 23:30	4.7	59.2	0.0	7.1	13.2	1.0	3/14/2025 23:30	4.6	60.5	0.0	7.2	14.0	0.0	8.0
3/14/2025 23:45	4.7	59.8	0.0	7.1	13.1	1.1	3/14/2025 23:45	4.6	61.0	0.0	7.1	14.0	0.0	8.0
3/15/2025 0:00	4.7	59.7	0.0	7.1	13.1	1.1	3/15/2025 0:00	4.6	61.3	0.0	7.1	14.0	0.0	8.0
3/15/2025 0:15	4.7	59.7	0.0	7.1	13.1	0.8	3/15/2025 0:15	4.6	61.2	0.0	7.1	14.0	0.0	8.0
3/15/2025 0:30	4.6	59.8	0.0	6.9	13.1	1.0	3/15/2025 0:30	4.6	61.1	0.0	7.1	14.0	0.0	8.0
3/15/2025 0:45	4.6	59.5	0.0	7.2	13.1	0.9	3/15/2025 0:45	4.5	61.1	0.0	7.2	14.0	0.0	8.0
3/15/2025 1:00	4.6	59.6	0.0	7.1	13.2	1.0	3/15/2025 1:00	4.5	60.8	0.0	7.2	14.0	0.0	8.0
3/15/2025 1:15	4.6	59.5	0.0	7.1	13.2	0.8	3/15/2025 1:15	4.5	61.0	0.0	7.2	14.0	0.0	8.0
3/15/2025 1:30	4.5	59.4	0.0	7.1	13.2	1.0	3/15/2025 1:30	4.5	60.9	0.0	7.1	14.0	0.0	8.0
3/15/2025 1:45	4.5	59.9	0.0	7.1	13.2	0.9	3/15/2025 1:45	4.5	61.5	0.0	7.2	14.0	0.0	8.0
3/15/2025 2:00	4.5	59.5	0.0	7.1	13.2	0.9	3/15/2025 2:00	4.4	60.8	0.0	7.1	14.0	0.0	8.0
3/15/2025 2:15	4.5	59.5	0.0	7.1	13.2	0.8	3/15/2025 2:15	4.4	61.2	0.0	7.1	14.0	0.0	8.0
3/15/2025 2:30	4.5	59.6	0.0	7.1	13.2	0.9	3/15/2025 2:30	4.4	60.8	0.0	7.1	14.0	0.0	8.0
3/15/2025 2:45	4.4	59.4	0.0	6.9	13.2	1.0	3/15/2025 2:45	4.4	60.9	0.0	7.2	14.0	0.0	8.0
3/15/2025 3:00	4.4	59.6	0.0	7.0	13.2	0.9	3/15/2025 3:00	4.4	61.1	0.0	7.2	14.0	0.0	8.0
3/15/2025 3:15	4.4	59.4	0.0	7.1	13.2	0.9	3/15/2025 3:15	4.3	61.0	0.0	7.2	14.0	0.0	8.0
3/15/2025 3:30	4.4	59.4	0.0	7.0	13.2	1.3	3/15/2025 3:30	4.3	60.8	0.0	7.2	14.0	0.0	8.0
3/15/2025 3:45	4.3	59.6	0.0	7.0	13.2	1.4	3/15/2025 3:45	4.3	61.1	0.0	7.1	14.0	0.0	8.0
3/15/2025 4:00	4.3	59.4	0.0	6.9	13.2	1.7	3/15/2025 4:00	4.3	60.9	0.0	7.2	14.0	0.0	8.0
3/15/2025 4:15	4.3	59.4	0.0	7.0	13.2	1.1	3/15/2025 4:15	4.2	61.1	0.0	7.2	14.0	0.0	8.0
3/15/2025 4:30	4.3	59.5	0.0	7.0	13.2	1.1	3/15/2025 4:30	4.2	60.7	0.0	7.1	14.0	0.0	8.0
3/15/2025 4:45	4.3	59.4	0.0	7.0	13.2	1.2	3/15/2025 4:45	4.2	60.8	0.0	7.2	14.1	0.0	8.0
3/15/2025 5:00	4.2	59.4	0.0	7.1	13.2	1.0	3/15/2025 5:00	4.2	60.6	0.0	7.2	14.0	0.0	8.0
3/15/2025 5:15	4.2	59.1	0.0	6.9	13.2	1.0	3/15/2025 5:15	4.2	59.9	0.0	7.2	14.1	0.0	8.0
3/15/2025 5:30	4.2	58.8	0.0	6.9	13.2	1.1	3/15/2025 5:30	4.1	60.0	0.0	7.2	14.1	0.0	8.0
3/15/2025 5:45	4.2	58.8	0.0	6.9	13.2	1.2	3/15/2025 5:45	4.1	59.8	0.0	7.2	14.1	0.0	8.0
3/15/2025 6:00	4.2	58.6	0.0	7.0	13.3	1.1	3/15/2025 6:00	4.1	59.5	0.0	7.2	14.1	0.0	8.0
3/15/2025 6:15	4.1	58.4	0.0	7.1	13.3	0.9	3/15/2025 6:15	4.1	59.5	0.0	7.2	14.1	0.0	8.0
3/15/2025 6:30	4.1	58.5	0.0	7.1	13.3	1.0	3/15/2025 6:30	4.1	59.7	0.0	7.2	14.1	0.0	8.0
3/15/2025 6:45	4.1	58.6	0.0	7.2	13.3	0.9	3/15/2025 6:45	4.1	59.7	0.0	7.2	14.1	2.9	10.9
3/15/2025 7:00	4.1	58.6	0.0	7.0	13.3	0.9	3/15/2025 7:00	4.0	59.6	0.0	7.2	14.1	0.0	8.0
3/15/2025 7:15	4.1	58.4	0.0	7.1	13.3	1.5	3/15/2025 7:15	4.0	60.0	0.0	7.2	14.1	0.0	8.0
3/15/2025 7:30	4.1	58.7	0.0	6.9	13.3	1.9	3/15/2025 7:30	4.0	60.0	0.0	7.2	14.1	0.0	8.0
3/15/2025 7:45	4.0	58.6	0.0	7.1	13.3	1.2	3/15/2025 7:45	4.0	59.9	0.0	7.2	14.1	0.0	8.0
3/15/2025 8:00	4.0	58.5	0.0	7.0	13.3	0.9	3/15/2025 8:00	4.0	59.8	0.0	7.2	14.2	0.0	8.0
3/15/2025 8:15	4.0	58.4	0.0	7.0	13.3	0.8	3/15/2025 8:15	4.0	59.9	0.0	7.2	14.1	0.0	8.0
3/15/2025 8:30	4.0	58.7	0.0	6.9	13.3	1.0	3/15/2025 8:30	4.0	62.1	0.0	7.2	14.0	0.0	8.0
3/15/2025 8:45	4.0	59.8	0.0	6.9	13.3	0.8	3/15/2025 8:45	4.0	62.9	0.0	7.2	14.1	0.0	8.0
3/15/2025 9:00	4.0	60.4	0.0	7.1	13.3	0.8	3/15/2025 9:00	4.0	63.0	0.0	7.2	14.1	0.0	8.0
3/15/2025 9:15	4.0	60.5	0.0	7.1	13.3	0.8	3/15/2025 9:15	4.0	63.0	0.0	7.1	14.1	0.0	8.0
3/15/2025 9:30	4.0	60.9	0.0	7.0	13.3	0.8	3/15/2025 9:30	4.0	63.0	0.0	7.1	14.1	0.0	8.0
3/15/2025 9:45	4.0	60.6	0.0	7.0	13.3	0.9	3/15/2025 9:45	4.0	62.4	0.0	7.1	14.1	0.0	8.0
3/15/2025 10:00	4.0	60.7	0.0	6.9	13.3	0.7	3/15/2025 10:00	4.0	63.3	0.0	7.2	14.1	0.0	8.0
3/15/2025 10:15	4.1	61.4	0.0	6.9	13.3	1.0	3/15/2025 10:15	4.1	64.2	0.0	7.2	14.1	0.0	8.0
3/15/2025 10:30	4.1	61.9	0.0	7.0	13.3	1.1	3/15/2025 10:30	4.1	64.6	0.0	7.2	14.1	0.2	8.2
3/15/2025 10:45	4.1	62.2	0.0	6.9	13.3	1.2	3/15/2025 10:45	4.1	64.7	0.0	7.1	14.1	0.0	8.0
3/15/2025 11:00	4.1	61.7	0.0	7.1	13.3	1.0	3/15/2025 11:00	4.1	63.2	0.0	7.1	14.1	0.0	8.0
3/15/2025 11:15	4.1	61.0	0.0	7.1	13.3	0.9	3/15/2025 11:15	4.1	62.7	0.0	7.2	14.2	0.0	8.0
3/15/2025 11:30	4.1	60.7	0.0	7.0	13.4	1.0	3/15/2025 11:30	4.1	62.2	0.0	7.1	14.2	0.0	8.0
3/15/2025 11:45	4.1	60.7	0.0	7.1	13.4	0.9	3/15/2025 11:45	4.1	62.2	0.0	7.2	14.2	0.0	8.0
3/15/2025 12:00	4.1	60.7	0.0	7.1	13.4	0.9	3/15/2025 12:00	4.1	62.3	0.0	7.2	14.2	0.0	8.0
3/15/2025 12:15	4.1	60.8	0.0	7.1	13.4	1.2	3/15/2025 12:15	4.2	62.2	0.0	7.2	14.2	0.0	8.0
3/15/2025 12:30	4.2	60.7	0.0	7.1	13.4	1.0	3/15/2025 12:30	4.2	62.7	0.0	7.1	14.2	0.7	8.7
3/15/2025 12:45	4.2	60.6	0.0	7.2	13.4	1.0	3/15/2025 12:45	4.2	62.3	0.0	7.2	14.3	0.0	8.0
3/15/2025 13:00	4.2	60.8	0.0	7.1	13.4	1.0	3/15/2025 13:00	4.2	62.3	0.0	7.2	14.2	0.0	8.0
3/15/2025 13:15	4.2	60.8	0.0	7.1	13.4	0.9	3/15/2025 13:15	4.2	62.5	0.0	7.1	14.2	0.0	8.0
3/15/2025 13:30	4.2	60.8	0.0	7.2	13.4	1.0	3/15/2025 13:30	4.2	62.4	0.0	7.2	14.3	0.0	8.0
3/15/2025 13:45	4.2	61.0	0.0	7.1	13.4	0.9	3/15/2025 13:45	4.2	62.6	0.0	7.2	14.2	0.0	8.0
3/15/2025 14:00	4.2	60.8	0.0	7.1	13.4	0.8	3/15/2025 14:00	4.2	62.9	0.0	7.2	14.3	0.0	8.0
3/15/2025 14:15	4.2	61.0	0.0	7.1	13.4	1.0	3/15/2025 14:15	4.2	62.9	0.0	7.2	14.2	0.0	8.0
3/15/2025 14:30	4.2	61.2	0.0	7.1	13.4	0.9	3/15/2025 14:30	4.2	62.8	0.0	7.2	14.3	0.0	8.0
3/15/2025 14:45	4.1	60.9	0.0	7.1	13.4	1.0	3/15/2025 14:45	4.2	62.5	0.0	7.2	14.3	0.0	8.0
3/15/2025 15:00	4.1	61.0	0.0	7.0	13.4	1.1	3/15/2025 15:00	4.2	62.7	0.0	7.2	14.3	0.0	8.0
3/15/2025 15:15	4.1	61.0	0.0	7.1	13.4	0.8	3/15/2025 15:15	4.2	62.7	0.0	7.2	14.3	0.0	8.0
3/15/2025 15:30	4.2	61.2	0.0	7.1	13.4	2.6	3/15/2025 15:30	4.2	63.5	0.0	7.2	14.3	0.0	8.0
3/15/2025 15:45	4.2	61.3	0.0	7.0	13.4	1.1	3/15/2025 15:45	4.2	62.8	0.0	7.2	14.3	0.0	8.0
3/15/2025 16:00	4.2	61.2	0.0	7.1	13.4	0.9	3/15/2025 16:00	4.2	62.6	0.0	7.2	14.3	0.0	8.0
3/15/2025 16:15	4.2	61.5	0.0	7.1	13.4	0.9	3/15/2025 16:15	4.2	63.0	0.0	7.2	14.3	0.0	8.0
3/15/2025 16:30	4.2	61.2	0.0	7.1	13.4	1.1	3/15/2025 16:30	4.2	63.3	0.0	7.2	14.3	0.0	8.0
3/15/2025 16:45	4.2	61.5	0.0	7.2	13.4	0.9	3/15/2025 16:45	4.2	63.1	0.0	7.2	14.3	0.0	8.0
3/15/2025 17:00	4.2	61.2	0.0	7.1	13.5	0.9	3/15/2025 17:00	4.2	62.9	0.0	7.2	14.3	0.0	8.0
3/15/2025 17:15	4.2	61.2	0.0	6.9	13.4	0.9	3/15/2025 17:15	4.2	62.6	0.0	7.2	14.3	0.0	8.0
3/15/2025 17:30	4.2	61.0	0.0	7.1	13.5	0.9	3/15/2025 17:30	4.2	62.7	0.0	7.2	14.3	0.2	8.2
3/15/2025 17:45	4.2	60.9	0.0	7.1	13.5	1.0	3/15/2025 17:45	4.2	62.3	0.0	7.2	14.3	0.0	8.0
3/15/2025 18:00	4.2	60.6	0.0	7.0	13.5	1.5	3/15/2025 18:00	4.2	61.6	0.0	7.2	14.4	0.0	8.0
3/15/2025 18:15	4.2	60.4	0.0	7.1	13.5	0.9	3/15/2025 18:15	4.2	62.2	0.0	7.2	14.3	0.0	8.0
3/15/2025 18:30	4.2	61.2	0.0	7.2	13.5	0.9	3/15/2025 18:30	4.2	63.1	0.0	7.2	14.3	0.0	8.0
3/15/2025 18:45	4.1	60.7	0.0	7.1	13.5	1.0	3/15/2025 18:45	4.1	61.2	0.0	7.2	14.3	0.0	8.0
3/15/2025 19:00	4.1	59.8	0.0	7.1	13.5	1.5	3/15/2025 19:00	4.1	60.8	0.0	7.3	14.4	0.0	8.0
3/15/2025 19:15	4.1	59.8	0.0	7.2	13.5	0.8	3/15/2025 19:15	4.1	62.0	0.0	7.2	14.3	0.0	8.0
3/15/2025 19:30	4.1	60.8	0.0	7.1	13.4	0.9	3/15/2025 19:30	4.1	62.9	0.0	7.2	14.3	0.0	8.0
3/15/2025 19:45	4.1	60.9	0.0	7.0	13.4	0.8	3/15/2025 19:45	4.1	63.3	0.0	7.2	14.2	0.0	8.0
3/15/2025 20:00	4.1	61.6	0.0	7.0	13.4	1.0	3/15/2025 20:00	4.1	64.2	0.0	7.2	14.2	0.0	8.0
3/15/2025 20:15	4.1	61.7	0.0	7.0	13.4	0.9	3/15/2025 20:15	4.1	63.9	0.0	7.2	14.2	0.0	8.0
3/15/2025 20:30	4.1	62.5	0.0	7.1	13.4	0.8	3/15/2025 20:30	4.1	65.8	0.0	7.2	14.2	0.0	8.0
3/15/2025 20:45	4.1	62.7	0.0	7.0	13.4	0.9	3/15/2025 20:45	4.1	65.7	0.0	7.1	14.1	0.0	8.0
3/15/2025 21:00	4.1	63.0	0.0	7.0	13.3	1.0	3/15/2025 21:00	4.1	65.5	0.0	7.2	14.1	0.0	8.0
3/15/2025 21:15	4.1	63.1	0.0	7.1	13.3	0.8	3/15/2025 21:15	4.1	65.6	0.0	7.2	14.1	0.0	8.0
3/15/2025 21:30	4.1	63.4	0.0	7.1	13.3	0.7	3/15/2025 21:30	4.1	68.4	0.0	7.1	14.0	0.0	8.0
3/15/2025 21:45	4.1	64.7	0.0	7.0	13.3	1.0	3/15/2025 21:45	4.1	67.8	0.0	7.1	14.0	0.0	8.0
3/15/2025 22:00	4.1	66.2	0.0	7.1	13.3	0.9	3/15/2025 22:00	4.1	66.9	0.0	7.1	14.1	0.0	8.0
3/15/2025 22:15	4.1	63.7	0.0	6.9	13.3	1.2	3/15/2025 22:15	4.1	67.4	0.0	7.1	14.1	0.0	8.0
3/15/2025 22:30	4.1	63.0	0.0	7.0	13.3	1.4	3/15/2025 22:30	4.0	65.2	0.0	7.1	14.1	0.0	8.0
3/15/2025 22:45	4.0	62.2	0.0	7.1	13.3	0.9	3/15/2025 22:45	4.0	63.8	0.0	7.1	14.1	0.0	8.0
3/15/2025 23:00	4.0	62.1	0.0	7.1	13.3	0.8	3/15/2025 23:00	4.0	63.6	0.0	7.1	14.1	0.0	8.0
3/15/2025 23:15	4.0	61.6	0.0	7.1	13.3	0.8	3/15/2025 23:15	4.0	63.6	0.0	7.1	14.1	0.0	8.0

3/15/2025 23:30	4.0	61.8	0.0	7.1	13.3	0.8	3/15/2025 23:30	4.0	63.3	0.0	7.1	14.1	0.0	8.0
3/15/2025 23:45	4.0	61.3	0.0	7.0	13.3	1.1	3/15/2025 23:45	4.0	63.0	0.0	7.2	14.2	0.0	8.0
3/16/2025 0:00	4.0	61.6	0.0	7.1	13.3	1.0	3/16/2025 0:00	4.0	63.0	0.0	7.2	14.2	0.0	8.0
3/16/2025 0:15	4.0	61.5	0.0	7.1	13.3	0.7	3/16/2025 0:15	4.0	63.2	0.0	7.2	14.2	0.0	8.0
3/16/2025 0:30	4.0	61.6	0.0	7.1	13.4	0.9	3/16/2025 0:30	3.9	63.0	0.0	7.2	14.1	0.0	8.0
3/16/2025 0:45	4.0	61.6	0.0	7.1	13.3	0.9	3/16/2025 0:45	3.9	62.9	0.0	7.1	14.2	0.0	8.0
3/16/2025 1:00	4.0	61.4	0.0	7.0	13.3	0.8	3/16/2025 1:00	3.9	62.9	0.0	7.2	14.2	0.0	8.0
3/16/2025 1:15	4.0	61.5	0.0	6.9	13.3	1.0	3/16/2025 1:15	3.9	62.9	0.0	7.2	14.2	0.0	8.0
3/16/2025 1:30	3.9	61.2	0.0	7.0	13.3	0.9	3/16/2025 1:30	3.9	63.1	0.0	7.1	14.2	0.0	8.0
3/16/2025 1:45	3.9	61.4	0.0	7.1	13.3	1.0	3/16/2025 1:45	3.9	63.1	0.0	7.2	14.2	0.0	8.0
3/16/2025 2:00	3.9	61.5	0.0	7.1	13.4	1.0	3/16/2025 2:00	3.9	63.2	0.0	7.2	14.1	0.0	8.0
3/16/2025 2:15	3.9	61.4	0.0	7.1	13.3	1.0	3/16/2025 2:15	3.9	62.7	0.0	7.2	14.2	0.0	8.0
3/16/2025 2:30	3.9	61.4	0.0	7.0	13.3	0.9	3/16/2025 2:30	3.9	63.0	0.0	7.1	14.2	0.0	8.0
3/16/2025 2:45	3.9	61.5	0.0	7.0	13.3	0.8	3/16/2025 2:45	3.9	62.9	0.0	7.2	14.2	0.0	8.0
3/16/2025 3:00	3.9	61.6	0.0	7.1	13.3	0.9	3/16/2025 3:00	3.9	63.5	0.0	7.1	14.2	0.0	8.0
3/16/2025 3:15	3.9	61.4	0.0	7.1	13.3	0.8	3/16/2025 3:15	3.9	62.7	0.0	7.2	14.2	0.0	8.0
3/16/2025 3:30	3.9	61.4	0.0	7.1	13.3	1.0	3/16/2025 3:30	3.9	62.8	0.0	7.2	14.2	0.0	8.0
3/16/2025 3:45	3.9	61.6	0.0	7.1	13.3	0.9	3/16/2025 3:45	3.9	63.0	0.0	7.1	14.2	0.0	8.0
3/16/2025 4:00	3.9	61.4	0.0	7.1	13.3	1.3	3/16/2025 4:00	3.9	63.0	0.0	7.1	14.2	0.0	8.0
3/16/2025 4:15	3.9	61.5	0.0	7.1	13.3	0.8	3/16/2025 4:15	3.9	62.9	0.0	7.2	14.2	0.0	8.0
3/16/2025 4:30	3.9	61.4	0.0	7.1	13.3	0.9	3/16/2025 4:30	3.9	62.9	0.0	7.2	14.2	0.0	8.0
3/16/2025 4:45	3.9	61.2	0.0	7.0	13.3	1.0	3/16/2025 4:45	3.9	62.5	0.0	7.1	14.2	0.0	8.0
3/16/2025 5:00	3.9	61.1	0.0	7.1	13.3	0.9	3/16/2025 5:00	3.9	62.5	0.0	7.2	14.2	0.0	8.0
3/16/2025 5:15	3.9	60.7	0.0	6.9	13.4	1.0	3/16/2025 5:15	3.8	62.0	0.0	7.2	14.2	0.0	8.0
3/16/2025 5:30	3.9	60.5	0.0	7.0	13.4	0.9	3/16/2025 5:30	3.8	61.7	0.0	7.2	14.2	0.0	8.0
3/16/2025 5:45	3.9	60.4	0.0	7.1	13.4	3.3	3/16/2025 5:45	3.8	62.0	0.0	7.2	14.2	0.0	8.0
3/16/2025 6:00	3.9	60.7	0.0	7.1	13.4	1.0	3/16/2025 6:00	3.8	61.7	0.0	7.2	14.2	0.0	8.0
3/16/2025 6:15	3.8	60.2	0.0	6.9	13.4	2.5	3/16/2025 6:15	3.8	61.5	0.0	7.2	14.2	0.0	8.0
3/16/2025 6:30	3.8	60.1	0.0	7.0	13.4	1.2	3/16/2025 6:30	3.8	61.3	0.0	7.2	14.2	0.0	8.0
3/16/2025 6:45	3.8	59.9	0.0	7.1	13.4	1.1	3/16/2025 6:45	3.8	61.6	0.0	7.2	14.2	0.0	8.0
3/16/2025 7:00	3.8	60.1	0.0	7.2	13.4	1.0	3/16/2025 7:00	3.8	61.6	0.0	7.2	14.2	0.0	8.0
3/16/2025 7:15	3.8	60.3	0.0	7.1	13.4	0.9	3/16/2025 7:15	3.8	61.8	0.0	7.2	14.2	0.0	8.0
3/16/2025 7:30	3.8	60.3	0.0	7.2	13.4	1.1	3/16/2025 7:30	3.8	61.3	0.0	7.2	14.3	0.0	8.0
3/16/2025 7:45	3.8	60.1	0.0	7.0	13.4	1.0	3/16/2025 7:45	3.8	61.4	0.0	7.2	14.3	0.0	8.0
3/16/2025 8:00	3.8	60.2	0.0	7.1	13.4	0.9	3/16/2025 8:00	3.8	61.7	0.0	7.2	14.2	0.0	8.0
3/16/2025 8:15	3.8	60.4	0.0	7.1	13.4	0.8	3/16/2025 8:15	3.7	61.3	0.0	7.2	14.3	0.0	8.0
3/16/2025 8:30	3.8	60.0	0.0	7.0	13.4	0.8	3/16/2025 8:30	3.8	62.0	0.0	7.2	14.2	0.0	8.0
3/16/2025 8:45	3.8	60.3	0.0	7.0	13.4	0.9	3/16/2025 8:45	3.8	62.8	0.0	7.2	14.2	0.0	8.0
3/16/2025 9:00	3.8	61.5	0.0	7.0	13.4	1.0	3/16/2025 9:00	3.8	64.7	0.0	7.2	14.2	0.0	8.0
3/16/2025 9:15	3.8	62.2	0.0	7.0	13.4	1.2	3/16/2025 9:15	3.8	65.0	0.0	7.2	14.2	0.0	8.0
3/16/2025 9:30	3.8	62.3	0.0	7.0	13.4	0.9	3/16/2025 9:30	3.9	65.7	0.0	7.2	14.2	0.0	8.0
3/16/2025 9:45	3.8	62.8	0.0	7.0	13.4	1.2	3/16/2025 9:45	3.9	66.0	0.0	7.2	14.1	0.0	8.0
3/16/2025 10:00	3.9	63.2	0.0	7.1	13.4	0.8	3/16/2025 10:00	3.9	66.2	0.0	7.1	14.1	0.0	8.0
3/16/2025 10:15	3.9	63.5	0.0	7.1	13.4	0.8	3/16/2025 10:15	3.9	66.6	0.0	7.1	14.1	0.0	8.0
3/16/2025 10:30	3.9	63.8	0.0	7.0	13.3	0.8	3/16/2025 10:30	3.9	67.2	0.0	7.1	14.1	0.0	8.0
3/16/2025 10:45	3.9	64.2	0.0	7.0	13.3	0.7	3/16/2025 10:45	4.0	66.8	0.0	7.1	14.2	0.0	8.0
3/16/2025 11:00	4.0	64.1	0.0	6.9	13.4	0.9	3/16/2025 11:00	4.0	65.9	0.0	7.1	14.2	0.0	8.0
3/16/2025 11:15	4.0	63.1	0.0	7.1	13.4	1.0	3/16/2025 11:15	4.0	64.5	0.0	7.1	14.3	0.0	8.0
3/16/2025 11:30	4.1	62.8	0.0	7.0	13.4	0.9	3/16/2025 11:30	4.1	64.4	0.0	7.1	14.3	0.2	8.2
3/16/2025 11:45	4.2	62.5	0.0	7.1	13.4	1.0	3/16/2025 11:45	4.2	64.2	0.0	7.2	14.3	0.0	8.0
3/16/2025 12:00	4.3	62.4	0.0	7.0	13.4	1.0	3/16/2025 12:00	4.3	64.0	0.0	7.1	14.3	0.0	8.0
3/16/2025 12:15	4.4	62.5	0.0	7.2	13.4	1.0	3/16/2025 12:15	4.5	64.2	0.0	7.2	14.3	0.0	8.0
3/16/2025 12:30	4.4	62.6	0.0	7.2	13.4	0.9	3/16/2025 12:30	4.5	64.0	0.0	7.2	14.3	0.0	8.0
3/16/2025 12:45	4.5	62.5	0.0	7.2	13.4	0.9	3/16/2025 12:45	4.5	64.3	0.0	7.1	14.3	0.0	8.0
3/16/2025 13:00	4.5	62.3	0.0	7.1	13.4	1.3	3/16/2025 13:00	4.5	63.8	0.0	7.2	14.3	0.1	8.1
3/16/2025 13:15	4.5	62.5	0.0	7.1	13.4	1.0	3/16/2025 13:15	4.6	64.1	0.0	7.1	14.3	0.0	8.0
3/16/2025 13:30	4.5	62.3	0.0	7.1	13.4	0.9	3/16/2025 13:30	4.7	64.2	0.0	7.2	14.3	0.0	8.0
3/16/2025 13:45	4.6	62.5	0.0	7.1	13.4	0.9	3/16/2025 13:45	4.7	63.7	0.0	7.2	14.3	0.0	8.0
3/16/2025 14:00	4.6	62.7	0.0	7.2	13.4	0.9	3/16/2025 14:00	4.7	63.8	0.0	7.2	14.3	0.0	8.0
3/16/2025 14:15	4.7	62.4	0.0	7.1	13.4	1.3	3/16/2025 14:15	4.8	63.7	0.0	7.2		0.0	8.0
3/16/2025 14:30	4.7	63.0	0.0	7.1	13.4	0.9	3/16/2025 14:30	4.8	63.9	0.0	7.2		0.0	8.0
3/16/2025 14:45	4.7	62.5	0.0	7.2	13.4	0.9	3/16/2025 14:45	4.8	64.4	0.0	7.2	14.3	0.0	8.0
3/16/2025 15:00	4.7	62.6	0.0	7.1	13.4	1.0	3/16/2025 15:00	4.8	64.6	0.0	7.2	14.3	0.0	8.0
3/16/2025 15:15	4.7	62.9	0.0	7.1	13.4	1.0	3/16/2025 15:15	4.7	64.9	0.0	7.2	14.3	0.0	8.0
3/16/2025 15:30	4.6	62.8	0.0	7.2	13.4	0.9	3/16/2025 15:30	4.7	65.0	0.0	7.2	14.2	0.0	8.0
3/16/2025 15:45	4.6	62.8	0.0	7.1	13.4	1.5	3/16/2025 15:45	4.7	64.2	0.0	7.2		0.0	8.0
3/16/2025 16:00	4.7	62.7	0.0	7.1	13.4	0.9	3/16/2025 16:00	4.7	64.2	0.0	7.2		0.0	8.0
3/16/2025 16:15	4.7	62.9	0.0	7.0	13.4	1.3	3/16/2025 16:15	4.7	64.7	0.0	7.2	14.2	0.0	8.0
3/16/2025 16:30	4.7	62.9	0.0	7.1	13.4	1.1	3/16/2025 16:30	4.8	64.6	0.0	7.2	14.3	0.0	8.0
3/16/2025 16:45	4.7	62.7	0.0	7.1	13.4	0.8	3/16/2025 16:45	4.7	64.2	0.0	7.2	14.3	0.0	8.0
3/16/2025 17:00	4.7	62.8	0.0	7.0	13.4	1.7	3/16/2025 17:00	4.8	64.3	0.0	7.2	14.3	0.0	8.0
3/16/2025 17:15	4.7	62.9	0.0	7.2	13.4	1.1	3/16/2025 17:15	4.8	64.6	0.0	7.2	14.3	0.0	8.0
3/16/2025 17:30	4.7	63.0	0.0	7.1	13.4	1.5	3/16/2025 17:30	4.8	64.6	0.0	7.2	14.2	0.0	8.0
3/16/2025 17:45	4.7	62.8	0.0	7.1	13.4	1.0	3/16/2025 17:45	4.7	64.1	0.0	7.2	14.3	0.0	8.0
3/16/2025 18:00	4.7	62.6	0.0	7.0	13.4	1.0	3/16/2025 18:00	4.7	64.3	0.0	7.2	14.3	0.0	8.0
3/16/2025 18:15	4.7	62.5	0.0	7.0	13.4	2.6	3/16/2025 18:15	4.7	64.1	0.0	7.2	14.3	0.0	8.0
3/16/2025 18:30	4.7	62.2	0.0	7.0	13.4	1.1	3/16/2025 18:30	4.7	63.7	0.0	7.2	14.3	0.0	8.0
3/16/2025 18:45	4.7	62.3	0.0	7.1	13.4	1.1	3/16/2025 18:45	4.7	63.9	0.0	7.2	14.3	0.0	8.0
3/16/2025 19:00	4.7	62.1	0.0	7.1	13.4	1.6	3/16/2025 19:00	4.6	63.1	0.0	7.3	14.3	0.0	8.0
3/16/2025 19:15	4.6	61.9	0.0	7.1	13.4	0.9	3/16/2025 19:15	4.6	63.6	0.0	7.3	14.3	0.0	8.0
3/16/2025 19:30	4.6	61.9	0.0	7.1	13.4	0.8	3/16/2025 19:30	4.6	63.4	0.0	7.2	14.3	0.0	8.0
3/16/2025 19:45	4.6	61.6	0.0	7.1	13.4	0.9	3/16/2025 19:45	4.5	63.0	0.0	7.3	14.3	0.0	8.0
3/16/2025 20:00	4.5	61.4	0.0	7.1	13.4	1.1	3/16/2025 20:00	4.5	62.3	0.0	7.3	14.3	0.0	8.0
3/16/2025 20:15	4.5	61.0	0.0	7.2	13.4	0.9	3/16/2025 20:15	4.5	62.8	0.0	7.3	14.3	0.0	8.0
3/16/2025 20:30	4.5	61.6	0.0	7.0	13.4	1.0	3/16/2025 20:30	4.5	64.5	0.0	7.3	14.2	0.0	8.0
3/16/2025 20:45	4.5	62.1	0.0	7.1	13.3	0.9	3/16/2025 20:45	4.5	66.1	0.0	7.2	14.1	0.0	8.0
3/16/2025 21:00	4.5	63.0	0.0	7.1	13.3	1.0	3/16/2025 21:00	4.5	65.7	0.0	7.2	14.1	0.0	8.0
3/16/2025 21:15	4.5	63.2	0.0	7.1	13.3	1.0	3/16/2025 21:15	4.5	65.5	0.0	7.2	14.1	0.0	8.0
3/16/2025 21:30	4.5	63.3	0.0	7.0	13.3	1.4	3/16/2025 21:30	4.5	67.3	0.0	7.2	14.1	0.0	8.0
3/16/2025 21:45	4.6	64.8	0.0	7.1	13.2	0.9	3/16/2025 21:45	4.6	68.9	0.0	7.2		0.0	8.0
3/16/2025 22:00	4.6	65.1	0.0	7.1	13.2	1.1	3/16/2025 22:00	4.6	68.7	0.0	7.2		0.0	8.0
3/16/2025 22:15	4.6	65.5	0.0	7.1	13.2	1.0	3/16/2025 22:15	4.6	69.2	0.0	7.1	14.0	0.0	8.0
3/16/2025 22:30	4.5	65.2	0.0	7.1	13.2	1.4	3/16/2025 22:30	4.5	68.8	0.0	7.2	14.0	0.0	8.0
3/16/2025 22:45	4.5	65.6	0.0	7.1	13.2	1.2	3/16/2025 22:45	4.6	69.6	0.0	7.1	14.0	0.0	8.0
3/16/2025 23:00	4.5	65.7	0.0	7.1	13.2	1.0	3/16/2025 23:00	4.5	68.9	0.0	7.2	14.0	0.0	8.0
3/16/2025 23:15	4.5	65.4	0.0	7.1	13.2	1.1	3/16/2025 23:15	4.5	68.9	0.0	7.1	14.0	0.0	8.0
3/16/2025 23:30	4.5	64.7	0.0	7.1	13.2	1.5	3/16/2025 23:30	4.5	66.5	0.0	7.2	14.0	0.0	8.0
3/16/2025 23:45	4.5	64.0	0.0	6.9	13.2	1.1	3/16/2025 23:45	4.4	65.5	0.0	7.1	14.1	0.0	8.0

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

Woodfibre Site Sample Analysis

TRITON	Sample ID	Reviewed and signed off by: Fanshad Shafiei Ph.D., E.P.Bio.	FANSHAD SHAFIEI PH.D., E.P.BIO.	WLNG EOP	Sample or value notes	BCWQ FAL - Short Term	BCWQ MAL - Short Term
	LAB ID			YA20AS337-001			
	Date Sampled			11-Mar-2020			
	Time Sampled			10:11			
Analyte	Units	FAL-ST [1,2]	MAL-ST [1]	Water Nat.		Guideline notes	
In Situ Parameters							
pH (field)	pH units	6.5-9.0	7.0-8.7	7.24		If natural pH < 6.5, no statistically significant decrease from background. No restriction in increase except in areas with unique flora or fauna. Unrestricted change permitted within range of 6.5 to 9.0. If natural pH > 9.0, no statistically significant increase from background. Refer to BC Water Quality Guidelines for more information.	Unrestricted change within this range (for protection of mollusc embryo development).
Temperature (field)	°C	Multiple guidelines dependent on water use and species, see notes: Short-term daily temperature < 13°C, or Max +/- 1°C from optimum temperature range for most sensitive salmonid species present, or Short-term daily temperature is 19°C, or Max +/- from BKG 1°C	Max +/- from BKG 1°C	9.9		Guideline is species-dependent. Short-term daily temperature is 13°C for streams with Bull Trout &/or Dolly Varden, Max +/- 1°C from the optimum range as shown in Tables 4&8 of the BCWQ for aquatic life for each life history phase of the most sensitive salmonid species present, Mean Weekly Max Temperature guideline is18°C, Short-term daily temperature guideline is 19°C for streams with unknown fish distribution, or Max +/- 1°C from background. Refer to footnote 4 for background temperature range for East Creek.	Guideline for marine waters are based on natural ambient conditions. Refer to footnote 4 for background temperature range for East Creek. Calculation: US value +/- 1 °= guideline range
Conductivity (field)	µS/cm	-	-	134			
Turbidity (field)	NTU	Varies with background, see note Guideline = 8.3	Varies with background, see note Guideline = 8.3	1.26		Change from background of 8 NTU at any one time for a duration of 24 h in all waters during clear flows or in clear waters. Calculation: US value + 8 = DS guideline Change from background of 5 NTU at any time when background is 8 - 50 NTU during high flows or in turbid waters. Calculation: US value + 5 = DS guideline Change from background of 10% when background is > 50 NTU at any time during high flows or in turbid waters. Calculation: US value + (US value*0.1) = DS guideline	Change from background of 8 NTU at any one time for a duration of 24 h in all waters during clear flows or in clear waters. Calculation US value + 8 = DS guideline Change from background of 5 NTU at any time when background is 8 - 50 NTU during high flows or in turbid waters. Calculation US value + 5 = DS guideline Change from background of 10% when background is > 50 NTU at any time during high flows or in turbid waters. Calculation: US value + (US value*0.1) = DS guideline
General Parameters							
Hardness (as $CaCO_3$) (total)	mg/L	-	-	55.3			
Total Dissolved Solids	mg/L	-	-	88			
Total Suspended Solids	mg/L	Varies with background, see note Guideline = 25.0	Varies with background, see note Guideline = 25.0	< 3.0		Change from background of 25 mg/L at any one time for duration of 24 h in all waters during clear flows or in clear waters. Calculation: US value + 25 = DS guideline Change from background of 10 mg/L at any one time when background 25-100 mg/L during high flows or turbid waters. Calculation: US value + 10 = DS guideline Change from background of 10% when background is > 100 mg/L at any time during high flows or turbid waters. Calculation: US value + (US value*0.1) = DS guideline	Change from background of 25 mg/L at any one time for duration of 24 h in all waters during clear flows or in clear waters. Calculation US value + 25 = DS guideline Change from background of 10 mg/L at any one time when background 25-100 mg/L during high flows or turbid waters. Calculation US value + 10 = DS guideline Change from background of 10% when background is > 100 mg/L at any time during high flows or turbid waters. Calculation US value + (US value*0.1) = DS guideline
Total Organic Carbon (TOC)	mg/L	-	-				
Dissolved Organic Carbon (DOC)	mg/L	-	-	0.56			
Total Phenols	mg/L	0.05	-	< 0.0010		Interim guideline	Interim guideline
Total Alkalinity ($CaCO_3$)	mg/L	-	-	51.3			
Total Sulfide (as S)	mg/L	-	-	< 0.0015			
Total Sulfide (unionized as H_2S)	mg/L	-	-	< 0.0015			
Total Sulfide (as H_2S)	mg/L	-	-	< 0.0016			
Anions and Nutrients							
Ammonia	mg/L ammonia-N	Varies with pH and temperature. See note. Guideline = 17.8	Varies with pH and temperature. See note. Guideline = 83	0.0451		Guideline for ammonia as N and is pH and temperature dependent. Refer to Table 27D in BC WQG for guideline values.	Guideline for ammonia as N. Guideline is pH, temperature and salinity-dependent. Refer to Table 27F in BC WQG for guideline values.
Bromide	mg/L	-	-	< 0.050			
Chloride	mg/L	600	+/- 10% from BKG	11			Human activities should not cause the chloride of marine and estuarine waters to fluctuate by more then 10% of the natural chloride expected at that time and depth.
Fluoride	mg/L	Varies with hardness Guideline = 1.096	1.5	0.268		Guideline has interim status. Guideline is calculated with the following equation: Guideline = (61.73 + 92.57 ln(H Hardness)^1.33)/1000	
Total Kjeldhal Nitrogen (TKN)	mg/L	-	-				
Nitrate (as N)	mg/L	32.8	-	0.0174			
Nitrite (as N)	mg/L	Varies with chloride. Table 27B, see note. Guideline = 0.60	-	< 0.0010		Varies with chloride. Refer to Table 27B in BC WQG for guideline values.	
Total Nitrogen	mg/L	-	-	0.264			
Total Phosphorus	mg/L	-	-	0.0227			
Sulfide (as SO_4)	mg/L	-	-	7.13			
Total Metals							
Aluminum (Al)-Total	mg/L	-	-	0.0713			
Antimony (Sb)-Total	mg/L	0.25	-	0.00052			
Arsenic (As)-Total	mg/L	-	-	0.00058			
Barium (Ba)-Total	mg/L	-	-	0.00523			
Beryllium (Be)-Total	mg/L	-	-	< 0.000100			
Bismuth (Bi)-Total	mg/L	-	-	< 0.000050			
Boron (B)-Total	mg/L	-	-	0.016			
Cadmium (Cd)-Total	mg/L	-	-	< 0.0000150			
Calcium (Ca)-Total	mg/L	-	-	20.6			
Cesium (Cs)-Total	mg/L	-	-	0.000058			
Chromium (Cr) - Total	mg/L	-	-	< 0.00050			
Chromium (Cr(III))-Total	mg/L	-	-	< 0.00050			
Chromium (Cr(VI))-Total	mg/L	-	-	< 0.00050			
Cobalt (Co)-Total	mg/L	0.11	-	< 0.00010			
Copper (Cu)-Total	mg/L	-	0.003	< 0.00050			
Iron (Fe)-Total	mg/L	1	-	0.017			
Lead (Pb)-Total	mg/L	-	0.14	0.000113			
Lithium (Li)-Total	mg/L	-	-	0.0036			
Magnesium (Mg)-Total	mg/L	-	-	5.93			
Manganese (Mn)-Total	mg/L	Varies with hardness Guideline = 1.149	-	0.00597		Guideline varies with hardness. The guideline is calculated using the following equation: Guideline = (e(0.6849 * hardness + 6.632))/1000 Guideline applies to samples with hardness 25-255 mg/L. Lowest value for guideline is 0.77 mg/L. If hardness is below the hardness range, the minimum hardness will be applied in the calculation.	
Mercury (Hg)-Total	mg/L	-	-	< 0.0000050			
Molybdenum (Mo)-Total	mg/L	48	-	0.0182			
Nickel (Ni)-Total	mg/L	-	-	< 0.00050			
Phosphorus (P)-Total	mg/L	-	-	< 0.050			
Potassium (K)-Total	mg/L	-	-	2.07			
Rubidium (Rb)-Total	mg/L	-	-	0.00038			
Selenium (Se)-Total	mg/L	-	-	0.000059			
Silicon (Si)-Total	mg/L	-	-	4.62			
Silver (Ag)-Total	mg/L	Varies with hardness, see note Guideline = 0.0001	0.003	0.000043		Varies with hardness Guideline ranges: Hardness ≤ 100: 0.0001 Hardness > 100: 0.003	
Sodium (Na)-Total	mg/L	-	-	5.71			
Strontium (Sr)-Total	mg/L	-	-	0.0404			
Sulfur (S)-Total	mg/L	-	-	2.2			
Tellurium (Te)-Total	mg/L	-	-	< 0.00020			
Thallium (Tl)-Total	mg/L	-	-	< 0.000010			
Thorium (Th)-Total	mg/L	-	-	< 0.00010			
Tin (Sn)-Total	mg/L	-	-	0.0007			
Titanium (Ti)-Total	mg/L	-	-	0.00052			
Tungsten (W)-Total	mg/L	-	-	0.00048			
Uranium (U)-Total	mg/L	0.0165	-	0.00124			
Vanadium (V)-Total	mg/L	-	-	0.00054			
Zinc (Zn)-Total	mg/L	-	0.005	0.0051			
Zirconium (Zr)-Total	mg/L	-	-	< 0.00020			
Dissolved Metals							
Aluminum (Al)-Dissolved	mg/L	-	-	0.0296			
Antimony (Sb)-Dissolved	mg/L	-	-	0.00049			
Arsenic (As)-Dissolved	mg/L	-	-	0.00052			
Barium (Ba)-Dissolved	mg/L	-	-	0.00457			
Beryllium (Be)-Dissolved	mg/L	-	-	< 0.000100			
Bismuth (Bi)-Dissolved	mg/L	-	-	< 0.000050			
Boron (B)-Dissolved	mg/L	-	-	0.016			
Cadmium (Cd)-Dissolved	mg/L	Varies with hardness, see note Guideline = 0.000320	-	< 0.0000150		Guideline is hardness dependent. Guideline is applicable to water hardness between 7-3 and 403 mg/L Guideline is calculated by the following formula: Guideline = (EXP(1.021 * (LN(Hardness)) - 5.274))/1000 Lowest value for guideline is 0.000018 mg/L. If hardness is below the hardness range, the minimum hardness will be applied in the calculation.	
Calcium (Ca)-Dissolved	mg/L	-	-	21.4			
Cesium (Cs)-Dissolved	mg/L	-	-	0.000054			
Chromium (Cr)-Dissolved	mg/L	-	-	< 0.00050			
Cobalt (Co)-Dissolved	mg/L	-	-	< 0.00010			
Copper (Cu)-Dissolved	mg/L	Guideline varies with other parameters, see note Guideline = 0.0008	-	< 0.00020		Guideline varies with other parameters and is calculated using BC BLM softwere. Simplified model: Temperature, pH, DOC and hardness Detailed model: Temperature, pH, DOC, humic acid content, total calcium, total magnesium, total sodium, total potassium, sulphate, chloride, and alkalinity Guideline calculated using values for parameters above taken at the specific site on each sampling date	
Iron (Fe)-Dissolved	mg/L	0.35	-	< 0.0100			
Lead (Pb)-Dissolved	mg/L	-	-	< 0.000050			
Lithium (Li)-Dissolved	mg/L	-	-	0.0037			
Magnesium (Mg)-Dissolved	mg/L	-	-	5.977			
Manganese (Mn)-Dissolved	mg/L	-	-	0.00598			
Mercury (Hg)-Dissolved	mg/L	-	-	< 0.000005			
Molybdenum (Mo)-Dissolved	mg/L	-	-	0.0206			
Nickel (Ni)-Dissolved	mg/L	Guideline varies with pH, temperature, DOC, and hardness Guideline: 0.03761	-	< 0.00050		Guideline varies with other parameters and is calculated using BC BLM software. Simplified model: Temperature, pH, DOC and hardness Detailed model: Temperature, pH, DOC, humic acid content, total calcium, total magnesium, total sodium, total potassium, sulphate, chloride, and alkalinity Guideline calculated using values for parameters above taken at the specific site on each sampling date	
Phosphorus (P)-Dissolved	mg/L	-	-	< 0.0330			
Potassium (K)-Dissolved	mg/L	-	-	1.54		0.0187	
Rubidium (Rb)-Dissolved	mg/L	-	-	0.00301			
Selenium (Se)-Dissolved	mg/L	-	-	0.000177			
Silicon (Si)-Dissolved	mg/L	-	-	4.8			
Silver (Ag)-Dissolved	mg/L	-	-	< 0.000010			
Sodium (Na)-Dissolved	mg/L	-	-	5.5			
Strontium (Sr)-Dissolved	mg/L	-	-	0.0439			
Sulfur (S)-Dissolved	mg/L	-	-	2.82			
Tellurium (Te)-Dissolved	mg/L	-	-	< 0.00020			
Thallium (Tl)-Dissolved	mg/L	-	-	< 0.000010			
Thorium (Th)-Dissolved	mg/L	-	-	< 0.00010			
Tin (Sn)-Dissolved	mg/L	-	-	< 0.00010			
Titanium (Ti)-Dissolved	mg/L	-	-	< 0.00030			
Tungsten (W)-Dissolved	mg/L	-	-	0.00048			
Uranium (U)-Dissolved	mg/L	-	-	0.00129			
Vanadium (V)-Dissolved	mg/L	-	-	0.00052			
Zinc (Zn)-Dissolved	mg/L	Varies with DOC and hardness Guideline = 0.031	-	0.0032		Guideline varies with DOC and hardness. Guideline is calculated using the following formula: Guideline = (EXP(0.833 * (LN(Hardness)) + 0.24 * (LN(DOC))) + 0.526)/1000 Floordress or DOC is below the hardness or DOC range, the minimum hardness or DOC will be applied in the calculation.	
Zirconium (Zr)-Dissolved	mg/L	-	-	< 0.00020			
Volatile Organic Compounds							
1,1-Dichloroethane	µg/L	-	-	< 0.32			
Chloromethane	µg/L	-	-	< 5.0			
Dichlorobenzene, 1,2-	µg/L	-	-	< 0.50			
Dichlorobenzene, 1,3-	µg/L	-	-	< 0.50			
Dichlorobenzene, 1,4-	µg/L	-	-	< 0.50			
Dichloropropane, 1,2-	µg/L	-	-	< 0.50			
Dichloropropylene, cis+trans-1,3-	µg/L	-	-	< 0.75			
Dichloropropylene, cis-1,3-	µg/L	-	-	< 0.50			
Tetrachloroethane, 1,1,1,2-	µg/L	-	-	< 0.50			
Tetrachloroethane, 1,1,2,2-	µg/L	-	-	< 0.25			
Trichloroethane, 1,1,2-	µg/L	-	-	< 0.50			
Trichlorofluoromethane	µg/L	-	-	< 0.50			
Carbon tetrachloride	µg/L	-	-	< 0.50			
Chloroethane	µg/L	-	-	< 0.50			
Dichloroethane, 1,1-	µg/L	-	-	< 0.50			
Dichloroethane, 1,2-	µg/L	-	-	< 0.50			
Dichloroethylene, 1,1-	µg/L	-	-	< 0.50			
Dichloroethylene, cis-1,2-	µg/L	-	-	< 0.50			
Dichloroethylene, trans-1,2-	µg/L	-	-	< 0.50			
Dichloromethane	µg/L	-	-	< 1.0			
Dichloropropylene, trans-1,3-	µg/L	-	-	< 0.50			
Tetrachloroethylene	µg/L	-	-	< 0.50			
Trichloroethane, 1,1,1-	µg/L	-	-	< 0.50			
Trichloroethylene	µg/L	-	-	< 0.50			
Vinyl chloride	µg/L	-	-	< 0.40			
Benzene	µg/L	-	-	< 0.50			
Ethylbenzene	µg/L	-	-	< 0.50			
Methyl-tert-butyl ether [MTBE]	µg/L	3400	440	< 0.50			
Styrene	µg/L	-	-	0.68			
Toluene	µg/L	-	-	< 0.40			
Xylene, m+p-	µg/L	-	-	< 0.40			
Xylene, o-	µg/L	-	-	< 0.30			
Xylenes, total	µg/L	-	-	< 0.50			
Bromodichloromethane	µg/L	-	-	< 0.50			
Bromoform	µg/L	-	-	< 0.50			
Chloroform	µg/L	-	-	< 0.50			
Dibromochloromethane	µg/L	-	-	< 0.50			
Hydrocarbons							
EPH (C10-C19)	µg/L	-	-	< 250			
EPH (C19-C32)	µg/L	-	-	< 250			
VPH (C4-C10)	µg/L	-	-	< 100			
LEPHw	µg/L	-	-	< 250			
VPHw	µg/L	-	-	< 100			
HEPHw	µg/L	-	-	< 250			
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	µg/L	-	-	< 0.010			
Acenaphthylene	µg/L	-	-	< 0.010			
Anthracene	µg/L	-	-	< 0.010			
Benzo(a)anthracene	µg/L	0.1	-	< 0.010			
Benzo(a)pyrene	µg/L	0.1	-	< 0.010			
Benzo(b+j)fluoranthene	µg/L	-	-	< 0.0050			
Benzo(b+j+k)fluoranthene	µg/L	-	-	< 0.010			
Benzo(g,h,i)perylene	µg/L	-	-	< 0.010			
Benzo(k)fluoranthene	µg/L	-	-	< 0.010			
Chrysene	µg/L	-	-	< 0.010			
Dibenz(a,h)anthracene	µg/L	-	-	< 0.0050			
Fluoranthene	µg/L	0.2	-	< 0.010		Guideline is for phototoxic effects	
Fluorene	µg/L	-	-	< 0.010			
Indeno(1,2,3-c,d)pyrene	µg/L	-	-	< 0.010			
Methylnaphthalene, 1-	µg/L	-	-	0.027			
Methylnaphthalene, 2-	µg/L	-	-	0.037			
Naphthalene	µg/L	-	-	< 0.050			
Phenanthrene	µg/L	-	-	< 0.030			
Pyrene	µg/L	0.02	-	< 0.010			
Quinoline	µg/L	-	-	< 0.050		Working guideline value	
Glycols							
Ethylene glycol	mg/L	-	-	< 5.0			
Propylene glycol, 1,2-	mg/L	-	-	< 5.0			
Applied Guideline:		**British Columbia Approved and Working Water Quality Guidelines (NOV 2022) for Freshwater Aquatic Life (FAL) & Marine Aquatic Life (MAL) Short-Term (ST) & Long-Term (LT)**					

[1]BC MOECCS. 2023. BC Water Quality Guidelines for the Protection of Aquatic Life, Wildlife & Agriculture. Accessed from: https://www2.gov.bc.ca/gov/content/environment/air-land-water/water-quality/water-quality-guidelines

[2]BC MOECCS. 2021. BC Working Water Quality Guidelines for the Protection of Aquatic Life, Wildlife & Agriculture. Accessed from: bc_env_working_water_quality_guidelines.pdf (gov.bc.ca)

*Note that long-term (LT) guidelines apply to averaged data to account for chronic impacts to aquatic life. Ideally, five samples collected at evenly spaced intervals over 30 days is considered to be the minimum number needed to calculate the long-term average of any parameter, though this may vary by parameter and site conditions. Long-term guidelines applied here are for reference only and may not indicate chronic impacts to aquatic life if exceedances occur in the short-term (ST).

‡Background temperatures ranges: Dec-Feb: 0.3-6.0C; Mar-Apr: 3.5-10.2C; May-June: 6.8-15.1C; Jul-present: 12.9-18.2C

Reference: AquaTROLL In-Situ Data Logger - Background water quality readings collected from Dec- present.
For guidelines dependent on other parameters, when hardness, pH or DOC are below the range stated in the guideline, the lowest value in the range is used to calculate the guideline.

Parameters Used to Calculate Guidelines

Analyte	Units	Measurement method	Values WLNG EOP	WLNG EOP
pH (field)	pH units	Field pH taken using handheld meters during sampling used in calculations	7.24	7.24
Temperature (field)	°C	Field temperature taken using handheld meters during sampling used in calculations	9.9	9.9
Turbidity (field)	NTU	Field turbidity taken using handheld meters during sampling used in calculations	1.26	1.26
Hardness (as $CaCO_3$) (total)	mg/L	Laboratory-tested total hardness taken at each respective sample site on the day of sampling used in guideline calculations	55.3	55.3
Dissolved Organic Carbon (DOC)	mg/L	Laboratory-tested dissolved organic carbon tested at the lab used in guideline calculations	0.56	0.56
Total Alkalinity ($CaCO_3$)	mg/L	Laboratory-tested total alkalinity used in calculations	51.3	51.3
Chloride	mg/L	Laboratory-tested chloride taken at each respective sample site on the day of sampling used in guideline calculations	11	11
Total Suspended Solids	mg/L	Laboratory-tested total suspended solids tested at the lab used in guideline calculations	< 3.0	< 3.0

RESULTS OF RAINBOW TROUT LC50 MULTI-CONCENTRATION

Client : 4800 Triton Environmental Consultants Ltd., Vancouver Job Number: C523650

Client Project Name & Number: 11964-Task 40-phase 3C-4C

Test Result:

96 hrs LC50 % vol/vol (95% CL): >100% (N/A) Statistical Method: Visual

Sample Name : EOP

Description:	Light blue, clear			Sample Number:	DGO764-01
Sample Collected:	Mar 18, 2025 09:45 AM	Sampling Method :	N/A	Site Collection:	N/A
Sample Collected By:	N/A	Volume Received:	4 x 10CB	Avg Temp Arrival:	7 °C Storage: 2-6°C
Sample Received:	Mar 18, 2025 05:12 PM	pH:	7.3	Dissolved Oxygen:	10.3 mg/L
Analysis Start :	Mar 19, 2025 02:20 PM	Temperature :	15 °C	Sample Conductance:	149 µS/cm

Concentration	Temperature (°C)	Temperature (°C)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (mg/L)	pH	pH	Conductivity (uS/cm)	Mortality (#)	Mortality (%)	Atypical Behaviour (#)
% vol/vol	Initial	96 hrs	Initial	96 hrs	Initial	96 hrs	Initial	96 hrs	96 hrs	96 hrs
0	14	15	10.4	9.9	7.5	7.5	46	0	0	0
6.25	14	15	10.4	9.9	7.4	7.4	54	0	0	0
12.5	14	15	10.3	9.9	7.5	7.4	60	0	0	0
25	14	15	10.3	9.9	7.5	7.5	70	0	0	0
50	15	15	10.3	10.0	7.5	7.5	95	0	0	0
100	15	15	10.3	9.9	7.5	7.7	149	0	0	0

Comments : All fish appeared and behaved normally at 24 hours, 48 hours, 72 hours, and 96 hours into testing.

Culture/Control/Dilution Water Burnaby Municipal Dechlorinated Water

Hardness: 26 mg/L $CaCO_3$ Other parameters available on request.

Test Conditions Test concentration : 0,6.25,12.5,25,50,100 (% vol/vol)

Organisms per Vessel :	10	Test Temperature :	15 ± 1 °C	Solution Depth :	>15 cm
Total # of Organisms Used :	60	Pre-aeration Time :	120 min.	Rate of Aeration	6.5±1 mL/ (min*L)
Test Volume :	15 L	Vessel Volume :	20L	Test pH Adjusted:	No
Loading Density :	0.3 g/L	Photoperiod :	16:8 (light: dark)		

Test Organism : Rainbow Trout *(Oncorhynchus mykiss)* Source : Aqua Farm

Culture Temperature :	15 ± 2 °C	Weight (Mean) +- SD :	0.5 ± 0.2 g	Length (Mean) +- SD :	4.05 ± 0.43 cm
Culture Water Renewal :	≥ 1L/min/kg fish	Weight (Range) :	0.2 – 1.0 g	Length (Range) :	3.30 – 4.70 cm
Culture Photoperiod :	16:8 (light: dark)			% Mortality within 7 days :	0%
Feeding rate and frequency :	daily: 1-5% biomass of trout.			Acclimation Time:	>14 days

Reference chemical: Zinc Test Date: Mar 17, 2025

Test Endpoint 96 hrs LC50 (95% confidence interval) : 0.16 (0.10, 0.24)mg/L Statistical Method : Probit

Historical Mean LC50 (warning limits) : 0.16 (0.09, 0.26) mg/L Concentration : 0,0.04,0.08,0.16,0.32,0.64 mg/L

Test Method BV Lab's BBY2SOP-00004 is based on the latest version of EPS 1/RM9 and EPS 1 /RM13.

Method Deviations : None.

Note: The results contained in this report refer only to the testing of the sample submitted. Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation, including the toxicity parameters reported herein. The conductivity, dissolved oxygen and pH data contained within the toxicity report are provided for information purposes and are not individually accredited parameters. This report may not be reproduced, except in its entirety, without the written approval of the laboratory.

Analyst : Larissa dos Santos Soares, Melanie Mazziotti

Verified By : Kimberly Tamaki, Scientist, Ecotoxicology Date: Mar 31, 2025 03:26 PM

Woodfibre Site Sample Lab Documentation

ALS Canada Ltd.

CERTIFICATE OF ANALYSIS

Work Order	:			
Client	:		Laboratory	: ALS Environmental - Vancouver
Contact	:		Account Manager	:
Address	:		Address	:
Telephone	:		Telephone	:
Project	:		Date Samples Received	:
PO	:		Date Analysis Commenced	: 12-Mar-2025
C-O-C number	:	----	Issue Date	: 18-Mar-2025 16:22
Sampler	:	AR		
Site	:	Water Analysis		
Quote number	:	VA25-TRIT100-001		
No. of samples received	:	1		
No. of samples analysed	:	1		

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

This 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.

Signatories	*Position*	*Laboratory Department*
		Inorganics, Edmonton, Alberta
		Metals, Burnaby, British Columbia
		Metals, Burnaby, British Columbia
		Organics, Burnaby, British Columbia
		Inorganics, Burnaby, British Columbia
		Inorganics, Burnaby, British Columbia
		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).

Unit	*Description*
-	no units
°C	degrees celsius
mg/L	milligrams per litre
pH units	pH units
µg/L	micrograms per litre
µS/cm	microsiemens per centimetre

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

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	Description
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
DTSE	Dissolved Se concentration exceeds total. Positive bias on D-Se suspected due to signal enhancement from volatile selenium species. Contact ALS if an alternative test to address this interference is needed.

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	WLNG EOP	----	----	----	----
					Client sampling date / time	11-Mar-2025 10:11	----	----	----	----
						VA25A5337-001	----	----	----	----
						Result	----	----	----	----
Field Tests										
Conductivity, field	----	EF001/VA	0.10	µS/cm		134.00	----	----	----	----
pH, field	----	EF001/VA	0.10	pH units		7.24	----	----	----	----
Temperature, field	----	EF001/VA	0.10	°C		9.90	----	----	----	----
Physical Tests										
Hardness (as CaCO3), dissolved	----	EC100/VA	0.60	mg/L		57.4	----	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/VA	0.60	mg/L		55.3	----	----	----	----
Solids, total dissolved [TDS]	----	E162/VA	10	mg/L		88	----	----	----	----
Solids, total suspended [TSS]	----	E160/VA	3.0	mg/L		<3.0	----	----	----	----
Alkalinity, total (as CaCO3)	----	E290/VA	2.0	mg/L		51.3	----	----	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L		0.0451	----	----	----	----
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		11.0	----	----	----	----
Fluoride	16984-48-8	E235.F/VA	0.020	mg/L		0.208	----	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/VA	0.0050	mg/L		0.0174	----	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/VA	0.0010	mg/L		<0.0010	----	----	----	----
Nitrogen, total	7727-37-9	E366/VA	0.030	mg/L		0.204	----	----	----	----
Phosphorus, total	7723-14-0	E372-U/VA	0.0020	mg/L		0.0227	----	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/VA	0.30	mg/L		7.13	----	----	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/VA	0.50	mg/L		0.56	----	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: WLNG EOP	----	----	----	----
					Client sampling date / time: 11-Mar-2025 10:11	----	----	----	----
					VA25A5337-001	----	----	----	----
					Result	----	----	----	----
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	0.0713	----	----	----	----
Antimony, total	7440-36-0	E420/VA	0.00010	mg/L	0.00052	----	----	----	----
Arsenic, total	7440-38-2	E420/VA	0.00010	mg/L	0.00058	----	----	----	----
Barium, total	7440-39-3	E420/VA	0.00010	mg/L	0.00523	----	----	----	----
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	0.016	----	----	----	----
Cadmium, total	7440-43-9	E420/VA	0.0000050	mg/L	<0.0000150 DLM	----	----	----	----
Calcium, total	7440-70-2	E420/VA	0.050	mg/L	20.6	----	----	----	----
Cesium, total	7440-46-2	E420/VA	0.000010	mg/L	0.000058	----	----	----	----
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	0.017	----	----	----	----
Lead, total	7439-92-1	E420/VA	0.000050	mg/L	0.000113	----	----	----	----
Lithium, total	7439-93-2	E420/VA	0.0010	mg/L	0.0036	----	----	----	----
Magnesium, total	7439-95-4	E420/VA	0.0050	mg/L	0.930	----	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	WLNG EOP	----	----	----	----
					Client sampling date / time	11-Mar-2025 10:11	----	----	----	----
					VA25A5337-001	----	----	----	----	----
					Result	----	----	----	----	----
Total Metals										
Manganese, total	7439-96-5	E420/VA	0.00010	mg/L		0.00597	----	----	----	----
Mercury, total	7439-97-6	E508/VA	0.0000050	mg/L		<0.0000050	----	----	----	----
Molybdenum, total	7439-98-7	E420/VA	0.000050	mg/L		0.0192	----	----	----	----
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		2.57	----	----	----	----
Rubidium, total	7440-17-7	E420/VA	0.00020	mg/L		0.00338	----	----	----	----
Selenium, total	7782-49-2	E420/VA	0.000050	mg/L		0.000059	----	----	----	----
Silicon, total	7440-21-3	E420/VA	0.10	mg/L		4.82	----	----	----	----
Silver, total	7440-22-4	E420/VA	0.000010	mg/L		0.000043	----	----	----	----
Sodium, total	7440-23-5	E420/VA	0.050	mg/L		5.71	----	----	----	----
Strontium, total	7440-24-6	E420/VA	0.00020	mg/L		0.0404	----	----	----	----
Sulfur, total	7704-34-9	E420/VA	0.50	mg/L		2.20	----	----	----	----
Tellurium, total	13494-80-9	E420/VA	0.00020	mg/L		<0.00020	----	----	----	----
Thallium, total	7440-28-0	E420/VA	0.000010	mg/L		<0.000010	----	----	----	----
Thorium, total	7440-29-1	E420/VA	0.00010	mg/L		<0.00010	----	----	----	----
Tin, total	7440-31-5	E420/VA	0.00010	mg/L		0.00070	----	----	----	----
Titanium, total	7440-32-6	E420/VA	0.00030	mg/L		0.00052	----	----	----	----
Tungsten, total	7440-33-7	E420/VA	0.00010	mg/L		0.00048	----	----	----	----
Uranium, total	7440-61-1	E420/VA	0.000010	mg/L		0.00124	----	----	----	----
Vanadium, total	7440-62-2	E420/VA	0.00050	mg/L		0.00054	----	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	WLNG EOP	----	----	----	----
					Client sampling date / time	11-Mar-2025 10:11	----	----	----	----
						VA25A5337-001	----	----	----	----
						Result	----	----	----	----
Total Metals										
Zinc, total	7440-66-6	E420/VA	0.0030	mg/L		0.0051	----	----	----	----
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		0.0296	----	----	----	----
Antimony, dissolved	7440-36-0	E421/VA	0.00010	mg/L		0.00049	----	----	----	----
Arsenic, dissolved	7440-38-2	E421/VA	0.00010	mg/L		0.00052	----	----	----	----
Barium, dissolved	7440-39-3	E421/VA	0.00010	mg/L		0.00467	----	----	----	----
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		0.016	----	----	----	----
Cadmium, dissolved	7440-43-9	E421/VA	0.0000050	mg/L		<0.0000150 DLM	----	----	----	----
Calcium, dissolved	7440-70-2	E421/VA	0.050	mg/L		21.4	----	----	----	----
Cesium, dissolved	7440-46-2	E421/VA	0.000010	mg/L		0.000054	----	----	----	----
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		<0.00020	----	----	----	----
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		0.0037	----	----	----	----
Magnesium, dissolved	7439-95-4	E421/VA	0.0050	mg/L		0.977	----	----	----	----
Manganese, dissolved	7439-96-5	E421/VA	0.00010	mg/L		0.00566	----	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	WLNG EOP	----	----	----	----
					Client sampling date / time	11-Mar-2025 10:11	----	----	----	----
					VA25A5337-001	----	----	----	----	----
					Result	----	----	----	----	----
Dissolved Metals										
Mercury, dissolved	7439-97-6	E509/VA	0.0000050	mg/L	<0.0000050	----	----	----	----
Molybdenum, dissolved	7439-98-7	E421/VA	0.000050	mg/L	0.0206	----	----	----	----
Nickel, dissolved	7440-02-0	E421/VA	0.00050	mg/L	<0.00050	----	----	----	----
Phosphorus, dissolved	7723-14-0	E421/VA	0.050	mg/L	<0.050	----	----	----	----
Potassium, dissolved	7440-09-7	E421/VA	0.050	mg/L	1.54	----	----	----	----
Rubidium, dissolved	7440-17-7	E421/VA	0.00020	mg/L	0.00301	----	----	----	----
Selenium, dissolved	7782-49-2	E421/VA	0.000050	mg/L	0.000177 DTSE	----	----	----	----
Silicon, dissolved	7440-21-3	E421/VA	0.050	mg/L	4.80	----	----	----	----
Silver, dissolved	7440-22-4	E421/VA	0.000010	mg/L	<0.000010	----	----	----	----
Sodium, dissolved	7440-23-5	E421/VA	0.050	mg/L	5.50	----	----	----	----
Strontium, dissolved	7440-24-6	E421/VA	0.00020	mg/L	0.0434	----	----	----	----
Sulfur, dissolved	7704-34-9	E421/VA	0.50	mg/L	2.82	----	----	----	----
Tellurium, dissolved	13494-80-9	E421/VA	0.00020	mg/L	<0.00020	----	----	----	----
Thallium, dissolved	7440-28-0	E421/VA	0.000010	mg/L	<0.000010	----	----	----	----
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	0.00048	----	----	----	----
Uranium, dissolved	7440-61-1	E421/VA	0.000010	mg/L	0.00129	----	----	----	----
Vanadium, dissolved	7440-62-2	E421/VA	0.00050	mg/L	0.00052	----	----	----	----
Zinc, dissolved	7440-66-6	E421/VA	0.0010	mg/L	0.0032	----	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	WLNG EOP	----	----	----	----
					Client sampling date / time	11-Mar-2025 10:11	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA25A5337-001	----	----	----	----
						Result	----	----	----	----
Dissolved Metals										
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	----	----	----	----
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-1,3-	10061-01-5	E611C/VA	0.50	µg/L		<0.50	----	----	----	----
Dichloropropylene, cis+trans-1,3-	542-75-6	E611C/VA	0.75	µg/L		<0.75	----	----	----	----
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	----	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	WLNG EOP	----	----	----	----
					Client sampling date / time	11-Mar-2025 10:11	----	----	----	----
					VA25A5337-001	----	----	----	----	----
					Result	----	----	----	----	----
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	0.88	----	----	----	----	
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	----	----	----	----	
Xylene, o-	95-47-6	E611C/VA	0.30	µg/L	<0.30	----	----	----	----	

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	WLNG EOP	----	----	----	----
Client sample ID					WLNG EOP	----	----	----	----
Client sampling date / time					11-Mar-2025 10:11	----	----	----	----
					VA25A5337-001	----	----	----	----
					Result	----	----	----	----
Volatile Organic Compounds [Fuels]									
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	%	95.8	----	----	----	----
Dichlorotoluene, 3,4-	95-75-0	E581.VH+F1/VA	1.0	%	96.5	----	----	----	----
Volatile Organic Compounds Surrogates									
Bromofluorobenzene, 4-	460-00-4	E611C/VA	1.0	%	84.0	----	----	----	----
Difluorobenzene, 1,4-	540-36-3	E611C/VA	1.0	%	98.0	----	----	----	----
Polycyclic Aromatic Hydrocarbons									
Acenaphthene	83-32-9	E641A/VA	0.010	µg/L	<0.010	----	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	WLNG EOP	----	----	----	----
					Client sampling date / time	11-Mar-2025 10:11	----	----	----	----
					VA25A5337-001	----	----	----	----	----
					Result	----	----	----	----	----
Polycyclic Aromatic Hydrocarbons										
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+j)fluoranthene	n/a	E641A/VA	0.010	µg/L		<0.010	----	----	----	----
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		0.027	----	----	----	----
Methylnaphthalene, 2-	91-57-6	E641A/VA	0.010	µg/L		0.037	----	----	----	----
Naphthalene	91-20-3	E641A/VA	0.050	µg/L		<0.050	----	----	----	----
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	----	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	WLNG EOP	----	----	----	----
					Client sampling date / time	11-Mar-2025 10:11	----	----	----	----
						VA25A5337-001	----	----	----	----
						Result	----	----	----	----
Polycyclic Aromatic Hydrocarbons Surrogates										
Chrysene-d12	1719-03-5	E641A/VA	0.1	%		91.7	----	----	----	----
Naphthalene-d8	1146-65-2	E641A/VA	0.1	%		89.7	----	----	----	----
Phenanthrene-d10	1517-22-2	E641A/VA	0.1	%		88.4	----	----	----	----
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	%		104	----	----	----	----

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

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA25A5337**	Page	: 1 of 15
Client	: **Triton Environmental Consultants Ltd.**	Laboratory	:
Contact	:	Account Manager	:
Address	:	Address	:
Telephone	:	Telephone	:
Project	:	Date Samples Received	: 11-Mar-2025 17:00
PO	:	Issue Date	: 18-Mar-2025 16:22
C-O-C number	: ----		
Sampler	: AR		
Site	: Water Analysis		
Quote number	: VA25-TRIT100-001		
No. of samples received	: 1		
No. of samples analysed	: 1		

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

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

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

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No 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

- 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
Laboratory Control Sample (LCS) Recoveries								
Dissolved Metals	QC-1906106-002	----	Phosphorus, dissolved	7723-14-0	E421	121 % MES	80.0-120%	Recovery greater than upper 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 Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) WLNG EOP	E562	11-Mar-2025	13-Mar-2025	28 days	2 days	✓	13-Mar-2025	28 days	2 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) WLNG EOP	E298	11-Mar-2025	12-Mar-2025	28 days	1 days	✓	14-Mar-2025	28 days	4 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE WLNG EOP	E235.Br-L	11-Mar-2025	13-Mar-2025	28 days	2 days	✓	13-Mar-2025	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE WLNG EOP	E235.Cl	11-Mar-2025	13-Mar-2025	28 days	2 days	✓	13-Mar-2025	28 days	2 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE WLNG EOP	E235.F	11-Mar-2025	13-Mar-2025	28 days	2 days	✓	13-Mar-2025	28 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE WLNG EOP	E235.NO3-L	11-Mar-2025	13-Mar-2025	3 days	2 days	✓	13-Mar-2025	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE WLNG EOP	E235.NO2-L	11-Mar-2025	13-Mar-2025	3 days	2 days	✓	13-Mar-2025	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 Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE WLNG EOP	E235.SO4	11-Mar-2025	13-Mar-2025	28 days	2 days	✓	13-Mar-2025	28 days	2 days	✓
Anions and Nutrients : Total Nitrogen by Colourimetry										
Amber glass total (sulfuric acid) WLNG EOP	E366	11-Mar-2025	12-Mar-2025	28 days	1 days	✓	13-Mar-2025	28 days	2 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) WLNG EOP	E372-U	11-Mar-2025	12-Mar-2025	28 days	1 days	✓	15-Mar-2025	28 days	4 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) WLNG EOP	E509	11-Mar-2025	15-Mar-2025	28 days	4 days	✓	15-Mar-2025	28 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) WLNG EOP	E421	11-Mar-2025	12-Mar-2025	180 days	1 days	✓	13-Mar-2025	180 days	2 days	✓
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid) WLNG EOP	EF001	11-Mar-2025	----	----	----		12-Mar-2025	----	1 days	
Glycols : Glycols (4 analytes) by GC-FID										
Glass vial WLNG EOP	E680E	11-Mar-2025	13-Mar-2025	7 days	2 days	✓	13-Mar-2025	40 days	0 days	✓
Hydrocarbons : BC PHCs - EPH by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate) WLNG EOP	E601A	11-Mar-2025	18-Mar-2025	14 days	7 days	✓	18-Mar-2025	40 days	0 days	✓
Hydrocarbons : VH and F1 by Headspace GC-FID										
Glass vial (sodium bisulfate) WLNG EOP	E581.VH+F1	11-Mar-2025	14-Mar-2025	14 days	3 days	✓	14-Mar-2025	14 days	4 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 Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass - dissolved (field filtered/sulfuric acid) WLNG EOP	E358-L	11-Mar-2025	12-Mar-2025	28 days	1 days	✓	13-Mar-2025	28 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE WLNG EOP	E290	11-Mar-2025	13-Mar-2025	14 days	2 days	✓	13-Mar-2025	14 days	2 days	✓
Physical Tests : TDS by Gravimetry										
HDPE WLNG EOP	E162	11-Mar-2025	----	----	----		17-Mar-2025	7 days	6 days	✓
Physical Tests : TSS by Gravimetry										
HDPE WLNG EOP	E160	11-Mar-2025	----	----	----		17-Mar-2025	7 days	6 days	✓
Polycyclic Aromatic Hydrocarbons : PAHs in Water by Hexane LVI GC-MS										
Amber glass/Teflon lined cap (sodium bisulfate) WLNG EOP	E641A	11-Mar-2025	18-Mar-2025	14 days	7 days	✓	18-Mar-2025	40 days	0 days	✓
Speciated Metals : Total Hexavalent Chromium (Cr VI) by IC										
Opaque HDPE - total (sodium hydroxide) WLNG EOP	E532	11-Mar-2025	----	----	----		12-Mar-2025	28 days	2 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) WLNG EOP	E508	11-Mar-2025	15-Mar-2025	28 days	4 days	✓	15-Mar-2025	28 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) WLNG EOP	E420	11-Mar-2025	13-Mar-2025	180 days	2 days	✓	14-Mar-2025	180 days	3 days	✓
Total Sulfides : Total Sulfide by Colourimetry (Automated Flow)										
HDPE total (zinc acetate+sodium hydroxide) WLNG EOP	E395	11-Mar-2025	----	----	----		12-Mar-2025	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 Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Volatile Organic Compounds : VOCs (BC List) by Headspace GC-MS										
Glass vial (sodium bisulfate)										
WLNG EOP	E611C	11-Mar-2025	14-Mar-2025	14 days	3 days	✓	14-Mar-2025	14 days	4 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			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
TSS by Gravimetry	E160	1911962	1	19	5.2	5.0	✓
TDS by Gravimetry	E162	1911965	1	19	5.2	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	1908050	1	18	5.5	5.0	✓
Chloride in Water by IC	E235.Cl	1908049	1	18	5.5	5.0	✓
Fluoride in Water by IC	E235.F	1908048	1	18	5.5	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1908052	1	18	5.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1908051	1	18	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1908053	1	18	5.5	5.0	✓
Alkalinity Species by Titration	E290	1908046	1	18	5.5	5.0	✓
Ammonia by Fluorescence	E298	1906660	1	16	6.2	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1906657	1	20	5.0	5.0	✓
Total Nitrogen by Colourimetry	E366	1906661	1	3	33.3	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1906659	1	16	6.2	5.0	✓
Total Sulfide by Colourimetry (Automated Flow)	E395	1905941	1	7	14.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1906098	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1906106	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1910380	1	20	5.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1910418	1	20	5.0	5.0	✓
Total Hexavalent Chromium (Cr VI) by IC	E532	1906847	1	16	6.2	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	1908028	1	8	12.5	5.0	✓
VH and F1 by Headspace GC-FID	E581.VH+F1	1908901	1	9	11.1	5.0	✓
VOCs (BC List) by Headspace GC-MS	E611C	1908902	1	8	12.5	5.0	✓
Glycols (4 analytes) by GC-FID	E680E	1907426	1	9	11.1	5.0	✓
Laboratory Control Samples (LCS)							
TSS by Gravimetry	E160	1911962	1	19	5.2	5.0	✓
TDS by Gravimetry	E162	1911965	1	19	5.2	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	1908050	1	18	5.5	5.0	✓
Chloride in Water by IC	E235.Cl	1908049	1	18	5.5	5.0	✓
Fluoride in Water by IC	E235.F	1908048	1	18	5.5	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1908052	1	18	5.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1908051	1	18	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1908053	1	18	5.5	5.0	✓
Alkalinity Species by Titration	E290	1908046	1	18	5.5	5.0	✓
Ammonia by Fluorescence	E298	1906660	1	16	6.2	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1906657	1	20	5.0	5.0	✓
Total Nitrogen by Colourimetry	E366	1906661	1	3	33.3	5.0	✓

Matrix: **Water**

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

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1906659	1	16	6.2	5.0	✓
Total Sulfide by Colourimetry (Automated Flow)	E395	1905941	1	7	14.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1906098	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1906106	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1910380	1	20	5.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1910418	1	20	5.0	5.0	✓
Total Hexavalent Chromium (Cr VI) by IC	E532	1906847	1	16	6.2	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	1908028	1	8	12.5	5.0	✓
VH and F1 by Headspace GC-FID	E581.VH+F1	1908901	1	9	11.1	5.0	✓
BC PHCs - EPH by GC-FID	E601A	1912830	1	18	5.5	5.0	✓
VOCs (BC List) by Headspace GC-MS	E611C	1908902	1	8	12.5	5.0	✓
PAHs in Water by Hexane LVI GC-MS	E641A	1912831	1	7	14.2	5.0	✓
Glycols (4 analytes) by GC-FID	E680E	1907426	1	9	11.1	5.0	✓
Method Blanks (MB)							
TSS by Gravimetry	E160	1911962	1	19	5.2	5.0	✓
TDS by Gravimetry	E162	1911965	1	19	5.2	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	1908050	1	18	5.5	5.0	✓
Chloride in Water by IC	E235.Cl	1908049	1	18	5.5	5.0	✓
Fluoride in Water by IC	E235.F	1908048	1	18	5.5	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1908052	1	18	5.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1908051	1	18	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1908053	1	18	5.5	5.0	✓
Alkalinity Species by Titration	E290	1908046	1	18	5.5	5.0	✓
Ammonia by Fluorescence	E298	1906660	1	16	6.2	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1906657	1	20	5.0	5.0	✓
Total Nitrogen by Colourimetry	E366	1906661	1	3	33.3	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1906659	1	16	6.2	5.0	✓
Total Sulfide by Colourimetry (Automated Flow)	E395	1905941	1	7	14.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1906098	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1906106	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1910380	1	20	5.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1910418	1	20	5.0	5.0	✓
Total Hexavalent Chromium (Cr VI) by IC	E532	1906847	1	16	6.2	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	1908028	1	8	12.5	5.0	✓
VH and F1 by Headspace GC-FID	E581.VH+F1	1908901	1	9	11.1	5.0	✓
BC PHCs - EPH by GC-FID	E601A	1912830	1	18	5.5	5.0	✓
VOCs (BC List) by Headspace GC-MS	E611C	1908902	1	8	12.5	5.0	✓
PAHs in Water by Hexane LVI GC-MS	E641A	1912831	1	7	14.2	5.0	✓
Glycols (4 analytes) by GC-FID	E680E	1907426	1	9	11.1	5.0	✓

Matrix: **Water**

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

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS)							
Bromide in Water by IC (Low Level)	E235.Br-L	1908050	1	18	5.5	5.0	✓
Chloride in Water by IC	E235.Cl	1908049	1	18	5.5	5.0	✓
Fluoride in Water by IC	E235.F	1908048	1	18	5.5	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1908052	1	18	5.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1908051	1	18	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1908053	1	18	5.5	5.0	✓
Ammonia by Fluorescence	E298	1906660	1	16	6.2	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1906657	1	20	5.0	5.0	✓
Total Nitrogen by Colourimetry	E366	1906661	1	3	33.3	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1906659	1	16	6.2	5.0	✓
Total Sulfide by Colourimetry (Automated Flow)	E395	1905941	1	7	14.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1906098	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1906106	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1910380	1	20	5.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1910418	1	20	5.0	5.0	✓
Total Hexavalent Chromium (Cr VI) by IC	E532	1906847	1	16	6.2	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	1908028	1	8	12.5	5.0	✓
VH and F1 by Headspace GC-FID	E581.VH+F1	1908901	1	9	11.1	5.0	✓
VOCs (BC List) by Headspace GC-MS	E611C	1908902	1	8	12.5	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 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry	E162 ALS Environmental - Vancouver	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Bromide in Water by IC (Low Level)	E235.Br-L 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 CO2. 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 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 methlyene blue colourimetric method. Results expressed "as H2S" if reported represent the maximum possible H2S concentration based on the total sulfide concentration in the sample. The H2S calculation converts Total Sulphide as (S2-) and reports it as Total Sulphide as (H2S)
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 ($K_3Fe(CN)_6$) 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 CaCO3), from total Ca/Mg" is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 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, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Vancouver	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 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.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
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 a GC-MS-FID.
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 orgaic solvent.

ALS Canada Ltd.

right solutions. right partner.

QUALITY CONTROL REPORT

Work Order	: **VA25A5337**	Page	: 1 of 23
Client	: Triton Environmental Consultants Ltd.	Laboratory	: ALS Environmental - Vancouver
Contact	:	Account Manager	:
Address	:	Address	:
Telephone	:	Telephone	:
Project	:	Date Samples Received	: 11-Mar-2025 17:00
PO	:	Date Analysis Commenced	: 12-Mar-2025
C-O-C number	: ----	Issue Date	: 18-Mar-2025 16:22
Sampler	: AR		
Site	: Water Analysis		
Quote number	: VA25-TRIT100-001		
No. of samples received	: 1		
No. of samples analysed	: 1		

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

This Quality Control Report contains the following information:

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

Signatories

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

Signatories	*Position*	*Laboratory Department*
		Vancouver Metals, Burnaby, British Columbia
		Edmonton Inorganics, Edmonton, Alberta
		Vancouver Metals, Burnaby, British Columbia
		Vancouver Metals, Burnaby, British Columbia
		Vancouver Organics, Burnaby, British Columbia
		Vancouver Inorganics, Burnaby, British Columbia
		Vancouver Inorganics, Burnaby, British Columbia
		Vancouver Metals, Burnaby, British Columbia
		Vancouver Administration, 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: 1908046)											
VA25A5268-003	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	105	105	0.190%	20%	----
Physical Tests (QC Lot: 1911962)											
VA25A5268-001	Anonymous	Solids, total suspended [TSS]	----	E160	3.0	mg/L	6.2	5.6	0.6	Diff <2x LOR	----
Physical Tests (QC Lot: 1911965)											
VA25A5268-001	Anonymous	Solids, total dissolved [TDS]	----	E162	10	mg/L	99	100	2	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1906659)											
VA25A5169-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	<0.0020	<0.0020	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1906660)											
VA25A5169-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.947	0.962	1.64%	20%	----
Anions and Nutrients (QC Lot: 1906661)											
VA25A5337-001	WLNG EOP	Nitrogen, total	7727-37-9	E366	0.030	mg/L	0.204	0.204	0.0006	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1908048)											
VA25A5268-001	Anonymous	Fluoride	16984-48-8	E235.F	0.020	mg/L	0.065	0.062	0.003	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1908049)											
VA25A5268-001	Anonymous	Chloride	16887-00-6	E235.Cl	0.50	mg/L	0.52	0.50	0.01	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1908050)											
VA25A5268-001	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: 1908051)											
VA25A5268-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	0.0495	0.0491	0.0004	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1908052)											
VA25A5268-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1908053)											
VA25A5268-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	4.60	4.59	0.195%	20%	----
Organic / Inorganic Carbon (QC Lot: 1906657)											
VA25A5169-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	0.83	0.81	0.01	Diff <2x LOR	----
Total Sulfides (QC Lot: 1905941)											
VA25A5230-001	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: 1906098)											
FJ2500739-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.193	0.196	1.58%	20%	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00089	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: 1906098) - continued											
FJ2500739-001	Anonymous	Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00082	0.00083	0.00002	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0946	0.0928	1.90%	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	0.111	0.108	2.51%	20%	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.000202	0.000191	5.51%	20%	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	51.2	50.3	1.79%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000020	0.000020	0.0000005	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	0.00056	0.00057	0.000008	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00706	0.00716	1.37%	20%	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00171	0.00170	0.00002	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.154	0.160	3.49%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000086	0.000084	0.000002	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0484	0.0469	3.10%	20%	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	18.2	18.5	1.16%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.224	0.226	0.620%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.00516	0.00524	1.48%	20%	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.0231	0.0233	1.09%	20%	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	2.75	2.76	0.458%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00226	0.00222	1.96%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000712	0.000679	4.87%	20%	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	2.54	2.51	1.39%	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	147	147	0.336%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.259	0.268	3.49%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	106	107	0.637%	20%	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	0.000011	0.000011	0.0000001	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	0.00192	0.00196	0.00004	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	0.00039	0.00038	0.00001	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.00137	0.00133	3.21%	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: 1906098) - continued											
FJ2500739-001	Anonymous	Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00122	0.00117	0.00004	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.0288	0.0290	0.0003	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: 1910380)											
VA25A5309-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1906106)											
VA25A5164-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00031	0.00031	0.00000006	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00158	0.00149	6.19%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0781	0.0823	5.32%	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	0.0000592	0.0000582	1.66%	20%	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	117	121	3.46%	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	1.43	1.39	2.67%	20%	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00124	0.00119	0.00005	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.184	0.181	1.95%	20%	----
		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	0.0267	0.0276	3.50%	20%	----
		Magnesium, dissolved	7439-95-4	E421	0.100	mg/L	59.9	60.0	0.111%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.125	0.127	1.44%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.00118	0.00121	2.07%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.834	0.838	0.537%	20%	----
		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	3.54	3.63	2.35%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00221	0.00234	5.67%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.0212	0.0215	1.36%	20%	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	5.70	5.78	1.39%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	0.0434	0.0428	1.46%	20%	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	41.1	41.4	0.701%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.622	0.642	3.11%	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: 1906106) - continued											
VA25A5164-001	Anonymous	Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	94.4	93.9	0.517%	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	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.0118	0.0120	1.02%	20%	----
		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	0.0014	0.0013	0.00008	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: 1910418)											
VA25A5330-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	0.0000050	0.0000064	0.0000014	Diff <2x LOR	----
Speciated Metals (QC Lot: 1906847)											
VA25A5336-001	Anonymous	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: 1908028)											
VA25A5327-001	Anonymous	Phenols, total (4AAP)	----	E562	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Volatile Organic Compounds (QC Lot: 1908902)											
VA25A5336-001	Anonymous	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: 1908902) - continued											
VA25A5336-001	Anonymous	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	<0.40	<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: 1908901)											
VA25A5336-001	Anonymous	VHw (C6-C10)	----	E581.VH+F1	100	µg/L	<100	<100	0.0%	30%	----
Glycols (QC Lot: 1907426)											
VA25A5236-001	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: 1908046)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1911962)						
Solids, total suspended [TSS]	----	E160	3	mg/L	<3.0	----
Physical Tests (QCLot: 1911965)						
Solids, total dissolved [TDS]	----	E162	10	mg/L	<10	----
Anions and Nutrients (QCLot: 1906659)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1906660)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1906661)						
Nitrogen, total	7727-37-9	E366	0.03	mg/L	<0.030	----
Anions and Nutrients (QCLot: 1908048)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 1908049)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 1908050)						
Bromide	24959-67-9	E235.Br-L	0.05	mg/L	<0.050	----
Anions and Nutrients (QCLot: 1908051)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1908052)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1908053)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Organic / Inorganic Carbon (QCLot: 1906657)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Sulfides (QCLot: 1905941)						
Sulfide, total (as S)	18496-25-8	E395	0.0015	mg/L	<0.0015	----
Total Metals (QCLot: 1906098)						
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: 1906098) - 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: 1910380)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1906106)						
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: 1906106) - 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: 1910418)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Speciated Metals (QCLot: 1906847)						
Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.0005	mg/L	<0.00050	----
Aggregate Organics (QCLot: 1908028)						
Phenols, total (4AAP)	----	E562	0.001	mg/L	<0.0010	----
Volatile Organic Compounds (QCLot: 1908902)						
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: 1908902) - 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: 1908901)						
VHw (C6-C10)	----	E581.VH+F1	100	µg/L	<100	----
Hydrocarbons (QCLot: 1912830)						
EPH (C10-C19)	----	E601A	250	µg/L	<250	----
EPH (C19-C32)	----	E601A	250	µg/L	<250	----
Polycyclic Aromatic Hydrocarbons (QCLot: 1912831)						
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**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Polycyclic Aromatic Hydrocarbons (QCLot: 1912831) - 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: 1907426)						
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: 1908046)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	500 mg/L	104	85.0	115	----
Physical Tests (QCLot: 1911962)									
Solids, total suspended [TSS]	----	E160	3	mg/L	150 mg/L	96.3	85.0	115	----
Physical Tests (QCLot: 1911965)									
Solids, total dissolved [TDS]	----	E162	10	mg/L	1000 mg/L	98.5	85.0	115	----
Anions and Nutrients (QCLot: 1906659)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.05 mg/L	99.3	80.0	120	----
Anions and Nutrients (QCLot: 1906660)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	104	85.0	115	----
Anions and Nutrients (QCLot: 1906661)									
Nitrogen, total	7727-37-9	E366	0.03	mg/L	0.5 mg/L	96.9	75.0	125	----
Anions and Nutrients (QCLot: 1908048)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1908049)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	103	90.0	110	----
Anions and Nutrients (QCLot: 1908050)									
Bromide	24959-67-9	E235.Br-L	0.05	mg/L	0.5 mg/L	103	85.0	115	----
Anions and Nutrients (QCLot: 1908051)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	103	90.0	110	----
Anions and Nutrients (QCLot: 1908052)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	98.2	90.0	110	----
Anions and Nutrients (QCLot: 1908053)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	105	90.0	110	----
Organic / Inorganic Carbon (QCLot: 1906657)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	102	80.0	120	----
Total Sulfides (QCLot: 1905941)									
Sulfide, total (as S)	18496-25-8	E395	0.0015	mg/L	0.08 mg/L	90.3	80.0	120	----
Total Metals (QCLot: 1906098)									

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: 1906098) - continued									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	95.1	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	95.9	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	103	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	96.8	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	106	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	92.4	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	96.4	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	100.0	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	101	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	101	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	99.6	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	100	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	93.5	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	99.3	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	99.3	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	101	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	92.0	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	108	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	104	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	96.8	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	99.8	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	104	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	99.0	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	96.2	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	100	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	106	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1906098) - 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	97.0	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	93.3	80.0	120	----
Total Metals (QCLot: 1910380)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	99.4	80.0	120	----
Dissolved Metals (QCLot: 1906106)									
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	102	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	101	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	97.5	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	103	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	94.4	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	95.4	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	96.7	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	100	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	100	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	102	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	102	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	103	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	102	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	101	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	# 121	80.0	120	MES
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	100	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	99.1	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	101	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	94.8	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	109	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	102	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	101	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1906106) - 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	98.9	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	99.8	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	96.1	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	106	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	104	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	96.1	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	95.5	80.0	120	----
Speciated Metals (QCLot: 1906847)									
Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.0005	mg/L	0.25 mg/L	99.7	80.0	120	----
Aggregate Organics (QCLot: 1908028)									
Phenols, total (4AAP)	----	E562	0.001	mg/L	0.02 mg/L	99.2	85.0	115	----
Volatile Organic Compounds (QCLot: 1908902)									
Benzene	71-43-2	E611C	0.5	µg/L	100 µg/L	99.9	70.0	130	----
Bromodichloromethane	75-27-4	E611C	0.5	µg/L	100 µg/L	93.8	70.0	130	----
Bromoform	75-25-2	E611C	0.5	µg/L	100 µg/L	125	70.0	130	----
Carbon tetrachloride	56-23-5	E611C	0.5	µg/L	100 µg/L	95.5	70.0	130	----
Chlorobenzene	108-90-7	E611C	0.5	µg/L	100 µg/L	101	70.0	130	----
Chloroethane	75-00-3	E611C	0.5	µg/L	100 µg/L	94.6	60.0	140	----
Chloroform	67-66-3	E611C	0.5	µg/L	100 µg/L	93.4	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	101	70.0	130	----
Dichlorobenzene, 1,2-	95-50-1	E611C	0.5	µg/L	100 µg/L	99.9	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	102	70.0	130	----
Dichloroethane, 1,2-	107-06-2	E611C	0.5	µg/L	100 µg/L	92.7	70.0	130	----
Dichloroethylene, 1,1-	75-35-4	E611C	0.5	µg/L	100 µg/L	96.2	70.0	130	----
Dichloroethylene, cis-1,2-	156-59-2	E611C	0.5	µg/L	100 µg/L	96.9	70.0	130	----
Dichloroethylene, trans-1,2-	156-60-5	E611C	0.5	µg/L	100 µg/L	103	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: 1908902) - continued									
Dichloromethane	75-09-2	E611C	1	µg/L	100 µg/L	99.2	70.0	130	----
Dichloropropane, 1,2-	78-87-5	E611C	0.5	µg/L	100 µg/L	99.9	70.0	130	----
Dichloropropylene, cis-1,3-	10061-01-5	E611C	0.5	µg/L	100 µg/L	111	70.0	130	----
Dichloropropylene, trans-1,3-	10061-02-6	E611C	0.5	µg/L	100 µg/L	113	70.0	130	----
Ethylbenzene	100-41-4	E611C	0.5	µg/L	100 µg/L	98.4	70.0	130	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611C	0.5	µg/L	100 µg/L	105	70.0	130	----
Styrene	100-42-5	E611C	0.5	µg/L	100 µg/L	102	70.0	130	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611C	0.5	µg/L	100 µg/L	98.9	70.0	130	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611C	0.2	µg/L	100 µg/L	96.7	70.0	130	----
Tetrachloroethylene	127-18-4	E611C	0.5	µg/L	100 µg/L	107	70.0	130	----
Toluene	108-88-3	E611C	0.4	µg/L	100 µg/L	97.3	70.0	130	----
Trichloroethane, 1,1,1-	71-55-6	E611C	0.5	µg/L	100 µg/L	92.7	70.0	130	----
Trichloroethane, 1,1,2-	79-00-5	E611C	0.5	µg/L	100 µg/L	94.9	70.0	130	----
Trichloroethylene	79-01-6	E611C	0.5	µg/L	100 µg/L	98.8	70.0	130	----
Trichlorofluoromethane	75-69-4	E611C	0.5	µg/L	100 µg/L	92.0	60.0	140	----
Vinyl chloride	75-01-4	E611C	0.4	µg/L	100 µg/L	96.9	60.0	140	----
Xylene, m+p-	179601-23-1	E611C	0.4	µg/L	200 µg/L	104	70.0	130	----
Xylene, o-	95-47-6	E611C	0.3	µg/L	100 µg/L	97.2	70.0	130	----
Hydrocarbons (QCLot: 1908901)									
VHw (C6-C10)	----	E581.VH+F1	100	µg/L	6310 µg/L	95.2	70.0	130	----
Hydrocarbons (QCLot: 1912830)									
EPH (C10-C19)	----	E601A	250	µg/L	6490 µg/L	101	70.0	130	----
EPH (C19-C32)	----	E601A	250	µg/L	3360 µg/L	100	70.0	130	----
Polycyclic Aromatic Hydrocarbons (QCLot: 1912831)									
Acenaphthene	83-32-9	E641A	0.01	µg/L	0.5 µg/L	102	60.0	130	----
Acenaphthylene	208-96-8	E641A	0.01	µg/L	0.5 µg/L	98.0	60.0	130	----
Acridine	260-94-6	E641A	0.01	µg/L	0.5 µg/L	96.6	60.0	130	----
Anthracene	120-12-7	E641A	0.01	µg/L	0.5 µg/L	107	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	99.1	60.0	130	----
Benzo(b+j)fluoranthene	n/a	E641A	0.01	µg/L	0.5 µg/L	82.1	60.0	130	----
Benzo(g,h,i)perylene	191-24-2	E641A	0.01	µg/L	0.5 µg/L	103	60.0	130	----
Benzo(k)fluoranthene	207-08-9	E641A	0.01	µg/L	0.5 µg/L	96.9	60.0	130	----
Chrysene	218-01-9	E641A	0.01	µg/L	0.5 µg/L	114	60.0	130	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report: Spike: Target Concentration	Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High	Qualifier
Polycyclic Aromatic Hydrocarbons (QCLot: 1912831) - 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	99.8	60.0	130	----
Fluorene	86-73-7	E641A	0.01	µg/L	0.5 µg/L	94.2	60.0	130	----
Indeno(1,2,3-c,d)pyrene	193-39-5	E641A	0.01	µg/L	0.5 µg/L	104	60.0	130	----
Methylnaphthalene, 1-	90-12-0	E641A	0.01	µg/L	0.5 µg/L	89.1	60.0	130	----
Methylnaphthalene, 2-	91-57-6	E641A	0.01	µg/L	0.5 µg/L	102	60.0	130	----
Naphthalene	91-20-3	E641A	0.05	µg/L	0.5 µg/L	92.7	50.0	130	----
Phenanthrene	85-01-8	E641A	0.02	µg/L	0.5 µg/L	110	60.0	130	----
Pyrene	129-00-0	E641A	0.01	µg/L	0.5 µg/L	103	60.0	130	----
Quinoline	91-22-5	E641A	0.05	µg/L	0.5 µg/L	107	60.0	130	----
Glycols (QCLot: 1907426)									
Diethylene glycol	111-46-6	E680E	5	mg/L	25 mg/L	105	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	106	70.0	130	----
Triethylene glycol	112-27-6	E680E	5	mg/L	25 mg/L	113	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: 1906659)										
VA25A5169-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0491 mg/L	0.05 mg/L	98.2	70.0	130	----
Anions and Nutrients (QCLot: 1906660)										
VA25A5169-002	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.103 mg/L	0.1 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 1906661)										
VA25A5338-001	Anonymous	Nitrogen, total	7727-37-9	E366	0.407 mg/L	0.4 mg/L	102	70.0	130	----
Anions and Nutrients (QCLot: 1908048)										
VA25A5268-002	Anonymous	Fluoride	16984-48-8	E235.F	1.05 mg/L	1 mg/L	105	75.0	125	----
Anions and Nutrients (QCLot: 1908049)										
VA25A5268-002	Anonymous	Chloride	16887-00-6	E235.Cl	108 mg/L	100 mg/L	108	75.0	125	----
Anions and Nutrients (QCLot: 1908050)										
VA25A5268-002	Anonymous	Bromide	24959-67-9	E235.Br-L	0.542 mg/L	0.5 mg/L	108	75.0	125	----
Anions and Nutrients (QCLot: 1908051)										
VA25A5268-002	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.68 mg/L	2.5 mg/L	107	75.0	125	----
Anions and Nutrients (QCLot: 1908052)										
VA25A5268-002	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.498 mg/L	0.5 mg/L	99.7	75.0	125	----
Anions and Nutrients (QCLot: 1908053)										
VA25A5268-002	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	109 mg/L	100 mg/L	109	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1906657)										
VA25A5169-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	5.11 mg/L	5 mg/L	102	70.0	130	----
Total Sulfides (QCLot: 1905941)										
VA25A5231-001	Anonymous	Sulfide, total (as S)	18496-25-8	E395	0.171 mg/L	0.2 mg/L	85.4	75.0	125	----
Total Metals (QCLot: 1906098)										
FJ2500739-002	Anonymous	Aluminum, total	7429-90-5	E420	0.182 mg/L	0.2 mg/L	90.8	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0186 mg/L	0.02 mg/L	92.8	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	0.0380 mg/L	0.04 mg/L	95.0	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0101 mg/L	0.01 mg/L	101	70.0	130	----
		Boron, total	7440-42-8	E420	0.090 mg/L	0.1 mg/L	90.5	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00400 mg/L	0.004 mg/L	100	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.00969 mg/L	0.01 mg/L	96.9	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0376 mg/L	0.04 mg/L	94.1	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
Total Metals (QCLot: 1906098) - continued										
FJ2500739-002	Anonymous	Cobalt, total	7440-48-4	E420	0.0190 mg/L	0.02 mg/L	94.8	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	1.88 mg/L	2 mg/L	94.2	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	0.0928 mg/L	0.1 mg/L	92.8	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	0.0185 mg/L	0.02 mg/L	92.6	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0369 mg/L	0.04 mg/L	92.2	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	3.73 mg/L	4 mg/L	93.2	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0196 mg/L	0.02 mg/L	98.0	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0417 mg/L	0.04 mg/L	104	70.0	130	----
		Silicon, total	7440-21-3	E420	9.58 mg/L	10 mg/L	95.8	70.0	130	----
		Silver, total	7440-22-4	E420	0.00367 mg/L	0.004 mg/L	91.8	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	0.0386 mg/L	0.04 mg/L	96.6	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00370 mg/L	0.004 mg/L	92.5	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0202 mg/L	0.02 mg/L	101	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	96.8	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0191 mg/L	0.02 mg/L	95.4	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00396 mg/L	0.004 mg/L	99.0	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.0990 mg/L	0.1 mg/L	99.0	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	0.0381 mg/L	0.04 mg/L	95.2	70.0	130	----
Total Metals (QCLot: 1910380)										
VA25A5309-002	Anonymous	Mercury, total	7439-97-6	E508	0.0000851 mg/L	0 mg/L	85.1	70.0	130	----
Dissolved Metals (QCLot: 1906106)										
VA25A5270-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.212 mg/L	0.2 mg/L	106	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	0.0219 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	0.0361 mg/L	0.04 mg/L	90.3	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00896 mg/L	0.01 mg/L	89.6	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.082 mg/L	0.1 mg/L	82.5	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00355 mg/L	0.004 mg/L	88.7	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.00997 mg/L	0.01 mg/L	99.7	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0406 mg/L	0.04 mg/L	101	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0188 mg/L	0.02 mg/L	94.1	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: 1906106) - continued										
VA25A5270-001	Anonymous	Copper, dissolved	7440-50-8	E421	0.0184 mg/L	0.02 mg/L	91.9	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.99 mg/L	2 mg/L	99.5	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0184 mg/L	0.02 mg/L	91.8	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0923 mg/L	0.1 mg/L	92.3	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	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0368 mg/L	0.04 mg/L	92.1	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	11.7 mg/L	10 mg/L	117	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	ND mg/L	----	ND	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0199 mg/L	0.02 mg/L	99.6	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0431 mg/L	0.04 mg/L	108	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.50 mg/L	10 mg/L	95.0	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00376 mg/L	0.004 mg/L	94.1	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	0.0423 mg/L	0.04 mg/L	106	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00346 mg/L	0.004 mg/L	86.6	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	0.0184 mg/L	0.02 mg/L	91.8	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0417 mg/L	0.04 mg/L	104	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	ND mg/L	----	ND	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.104 mg/L	0.1 mg/L	104	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.396 mg/L	0.4 mg/L	99.0	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0399 mg/L	0.04 mg/L	99.6	70.0	130	----
Dissolved Metals (QCLot: 1910418)										
VA25A5330-002	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000936 mg/L	0 mg/L	93.6	70.0	130	----
Speciated Metals (QCLot: 1906847)										
VA25A5337-001	WLNG EOP	Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.258 mg/L	0.25 mg/L	103	70.0	130	----
Aggregate Organics (QCLot: 1908028)										
VA25A5337-001	WLNG EOP	Phenols, total (4AAP)	----	E562	0.0196 mg/L	0.02 mg/L	98.0	75.0	125	----
Volatile Organic Compounds (QCLot: 1908902)										
VA25A5337-001	WLNG EOP	Benzene	71-43-2	E611C	101 µg/L	100 µg/L	101	60.0	140	----
		Bromodichloromethane	75-27-4	E611C	95.4 µg/L	100 µg/L	95.4	60.0	140	----
		Bromoform	75-25-2	E611C	127 µg/L	100 µg/L	127	60.0	140	----
		Carbon tetrachloride	56-23-5	E611C	97.9 µg/L	100 µg/L	97.9	60.0	140	----
		Chlorobenzene	108-90-7	E611C	101 µg/L	100 µg/L	101	60.0	140	----
		Chloroethane	75-00-3	E611C	91.7 µg/L	100 µg/L	91.7	50.0	150	----
		Chloroform	67-66-3	E611C	95.6 µg/L	100 µg/L	95.6	60.0	140	----
		Chloromethane	74-87-3	E611C	96.3 µg/L	100 µg/L	96.3	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: 1908902) - continued										
VA25A5337-001	WLNG EOP	Dibromochloromethane	124-48-1	E611C	100 µg/L	100 µg/L	100	60.0	140	----
		Dichlorobenzene, 1,2-	95-50-1	E611C	99.2 µg/L	100 µg/L	99.2	60.0	140	----
		Dichlorobenzene, 1,3-	541-73-1	E611C	106 µg/L	100 µg/L	106	60.0	140	----
		Dichlorobenzene, 1,4-	106-46-7	E611C	106 µg/L	100 µg/L	106	60.0	140	----
		Dichloroethane, 1,1-	75-34-3	E611C	104 µg/L	100 µg/L	104	60.0	140	----
		Dichloroethane, 1,2-	107-06-2	E611C	94.4 µg/L	100 µg/L	94.4	60.0	140	----
		Dichloroethylene, 1,1-	75-35-4	E611C	95.9 µg/L	100 µg/L	95.9	60.0	140	----
		Dichloroethylene, cis-1,2-	156-59-2	E611C	97.9 µg/L	100 µg/L	97.9	60.0	140	----
		Dichloroethylene, trans-1,2-	156-60-5	E611C	104 µg/L	100 µg/L	104	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	102 µg/L	100 µg/L	102	60.0	140	----
		Dichloropropylene, cis-1,3-	10061-01-5	E611C	107 µg/L	100 µg/L	107	60.0	140	----
		Dichloropropylene, trans-1,3-	10061-02-6	E611C	109 µg/L	100 µg/L	109	60.0	140	----
		Ethylbenzene	100-41-4	E611C	95.7 µg/L	100 µg/L	95.7	60.0	140	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611C	105 µg/L	100 µg/L	105	60.0	140	----
		Styrene	100-42-5	E611C	99.3 µg/L	100 µg/L	99.3	60.0	140	----
		Tetrachloroethane, 1,1,1,2-	630-20-6	E611C	99.2 µg/L	100 µg/L	99.2	60.0	140	----
		Tetrachloroethane, 1,1,2,2-	79-34-5	E611C	96.2 µg/L	100 µg/L	96.2	60.0	140	----
		Tetrachloroethylene	127-18-4	E611C	108 µg/L	100 µg/L	108	60.0	140	----
		Toluene	108-88-3	E611C	96.4 µg/L	100 µg/L	96.4	60.0	140	----
		Trichloroethane, 1,1,1-	71-55-6	E611C	94.2 µg/L	100 µg/L	94.2	60.0	140	----
		Trichloroethane, 1,1,2-	79-00-5	E611C	94.1 µg/L	100 µg/L	94.1	60.0	140	----
		Trichloroethylene	79-01-6	E611C	99.3 µg/L	100 µg/L	99.3	60.0	140	----
		Trichlorofluoromethane	75-69-4	E611C	94.0 µg/L	100 µg/L	94.0	50.0	150	----
		Vinyl chloride	75-01-4	E611C	89.4 µg/L	100 µg/L	89.4	50.0	150	----
		Xylene, m+p-	179601-23-1	E611C	209 µg/L	200 µg/L	104	60.0	140	----
		Xylene, o-	95-47-6	E611C	95.1 µg/L	100 µg/L	95.1	60.0	140	----
Hydrocarbons (QCLot: 1908901)										
VA25A5348-001	Anonymous	VHw (C6-C10)	----	E581.VH+F1	5620 µg/L	6310 µg/L	89.1	60.0	140	----

Chain of Custody (COC) / Analytical Request Form

COC Number: 20 -

Page 1 of 1

Canada Toll Free: 1 800 668 9878

www.alsglobal.com

Report To	Contact and company name below will appear on the final report	Reports / Recipients	Turnaround Time (TAT) Requested
Company:	[redacted]	Select Report Format: ☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:		Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:		☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:		Email 1 or Fax [redacted]	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:		Email 2	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:		Email 3	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☐ YES ☑ NO		Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☐ YES ☑ NO	Select Invoice [redacted]	For all tests with rush TATs requested, please contact your AM to confirm availability.
Company:		Email 1 or Fax	
Contact:		Email 2	

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:	VA25-TRIT100-001	AFE/Cost Center:	PO#
Job #:	11964	Major/Minor Code:	Routing Code:
PO / AFE:	11964 - Task 40 - Phase 3C-4C	Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (ALS use only):	A5337	ALS Contact: Can Dang	Sampler: [redacted]

Analysis Request

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

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Total metals + mercury (P)	Dissolved metals + mercury (F/P)	Total hexavalent chromium (P)	Total trivalent chromium (P)	TSS, TDS, T-Alkalinity, Anions scan (Br, Cl, F, NO2, NO3, SO4)	Total sulfide (low) (as H2S), Unionized Sulfide (low) (P)	Nutrients (ammonia, ammonium, total nitrogen, total phosphorus) (P)	VOC/VPH (P)	EPH, PAH, LEPH/HEPH (P)	DOC (F/P)	Glycols	General parameters (alkalinity)	Phenols (P)	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	WLNG EOP	↑	↑	Water	16	R	R	R	R	R	R	R	R	R	R	R	R	R			
	pH: 7.24 cond: 134 uS temp: 9.90	11-Mar-25	10:11	↓																	

Environmental Division
Vancouver
Work Order Reference
VA25A5337

Telephone : +1 604 253 4188

Drinking Water (DW) Samples? Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Are samples taken from a Regi

☐ YES ☑ NO

Are samples for human consumption/ use?

☐ YES ☑ NO

ESDAT EDD to ESdat_CA+tritonenv@ESdatLabSync.net

SAMPLE RECEIPT DETAILS (ALS use only)

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

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

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

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				5	7	8	

SHIPMENT RELEASE (client use)		INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
R [redacted]	Time: 17:00	Received by:	Date:	Time:	Received by: [redacted]	Time: 1700

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

AUG 2020 FRONT

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.

Woodfibre Site WTP Discharge Field Notes and Logs

FortisBC Eagle Mountain-Woodfibre Gas Pipeline

Water Discharge Authorization Water Quality Monitoring

2025-3-11-Rysdale-0E359

Project Component:	Tunnel	**Site Name:**	WLNG Treatment Discharge
Inspection Date:	03/11/2025	**Location:**	WLNG
Triton QP:	Aaron Rysdale	**Latitude/Longitude:**	49.669653 -123.249059
Temperature(c):	Low 3 High 4	**Permit:**	PE 110136
Weather Conditions:	Light Rain	**Ground Conditions:**	Wet

Observations

Time: 10:11:19 **Flow Volume (visual):** N/A

Notes: Taken directly from end of EOP discharge hose while system was running

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		
TSS	Yes	**Anions**	Yes		
TDS	Yes	**Total Trivalent Chromium**	Yes	**QA Samples:**	Yes
Nutrients	Yes	**VOC/VPH**	Yes		
DOC	Yes	**EPH, PAH, LEPH/HEPH**	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: Upstream of EOP

Photo: 2

Location: WLNG EOP

Description: EOP sampling point

2025-3-11-Rysdale-0E359

Photos

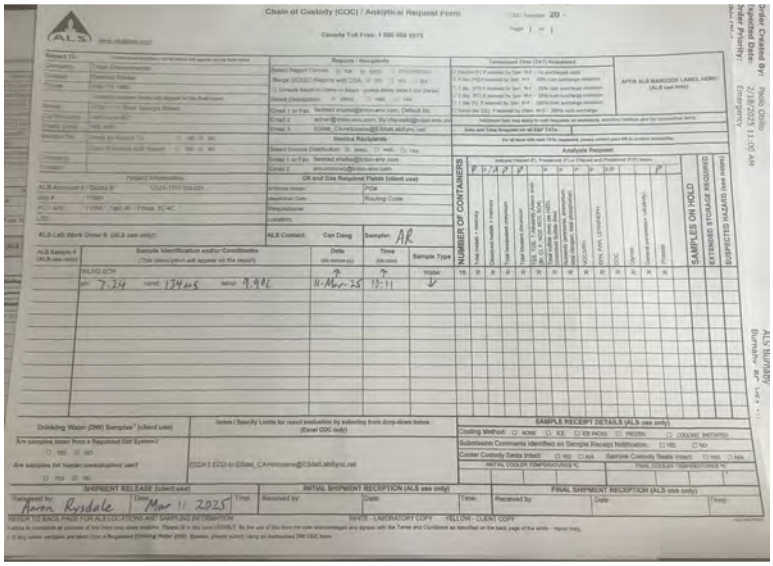


Photo: 3

Location: Lab COC

Description: Sample COC

Sign Off

Report Prepared By: Aaron Rysdale

Report Reviewed: Yes

Report Reviewer:

Professional(s) of Record:

Name:

Designation:

Designation Number:

FRONTIER-KEMPER MICHELS® joint venture		**Eagle Mountain- Woodfibre Gas Pipeline Project- Tunnel Scope**	
Title	**WoodFibre Weekly Water Discharge Report**	**Revision:**	**0**
Data Date Range	**March 10, 2025 to March 16, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **March 21, 2025**

Table of Contents:

1. Executive Summary and Notes
2. Discharge Parameter Summary
3. WTP Calibration Log

Appendices:

Appendix A- WTP Data Log
Appendix B- YSI Data Log
Appendix C- Photos

1. Executive Summary and Field Notes:

The discharged water consistently remained within regulatory guidelines. The key parameters, including temperature, pH, NTU, salinity, conductivity, and oxidation-reduction potential (ORP), were monitored throughout the discharge process and remained within the prescribed limits. No visible sheen observed on top of the WTP tanks and discharged water. All relevant parameters were measured using YSI instruments and WTP probes. The total discharge volume up to March 10 was 107,625 m³.

Daily Volume Summary:

Table 1: Discharge Volumes Daily Summary

Date	Location	Volume (m3)	Comments
March 10	Woodfibre (WF)	1,818	Exceeded discharge volume limit
March 11	WF	1,959	Exceeded discharge volume limit
March 12	WF	1,677	Exceeded discharge volume limit
March 13	WF	1,712	Exceeded discharge volume limit
March 14	WF	1,719	Exceeded discharge volume limit
March 15	WF	1,731	Exceeded discharge volume limit
March 16	WF	1,774	Exceeded discharge volume limit
	Total	12,390	None

2. Discharge Parameter Summary:

Table 2: Discharge Parameter Summary

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/10/2025	0:00:00	7.5	1.616	17	107,625	11.5	276
3/10/2025	0:15:00	7.4	0.337	3.1	107,650	11.4	277
3/10/2025	0:30:00	7.5	0.367	3.4	107,655	12.3	281
3/10/2025	0:45:00	7	2.014	2.8	107,676	11.3	278
3/10/2025	1:00:00	7	1.870	0.6	107,703	11.3	275
3/10/2025	1:15:00	7	1.976	2.9	107,733	11.2	276
3/10/2025	1:30:00	7.6	0.000	1.2	107,758	11.2	276
3/10/2025	1:45:00	7.6	0.170	1.8	107,760	11.9	276
3/10/2025	2:00:00	7	1.351	0.3	107,771	11.3	278
3/10/2025	2:15:00	7	1.942	0.7	107,799	11.2	278
3/10/2025	2:30:00	7.6	1.934	1.7	107,828	11.3	275
3/10/2025	2:45:00	7.5	0.333	1.1	107,855	11.4	277
3/10/2025	3:00:00	7.5	0.299	1.2	107,859	12.3	276
3/10/2025	3:15:00	7.5	0.299	1.1	107,864	12.9	275
3/10/2025	3:30:00	7.2	1.896	7.5	107,886	11.2	275
3/10/2025	4:00:00	7.5	1.207	6	107,918	11.4	279
3/10/2025	4:15:00	7.5	1.813	1.5	107,937	11.8	276
3/10/2025	4:30:00	7.6	1.741	3.1	107,963	12.1	274
3/10/2025	4:45:00	7.4	1.643	3.8	107,989	11.9	279
3/10/2025	5:00:00	7.6	1.548	2.5	108,012	12.2	281
3/10/2025	5:15:00	7.3	1.696	2.6	108,035	12	281
3/10/2025	5:30:00	7.5	1.688	1.2	108,051	12.1	276

FRONTIER-KEMPER MICHELS® joint venture		Eagle Mountain- Woodfibre Gas Pipeline Project- Tunnel Scope	
Title	**WoodFibre Weekly Water Discharge Report**	**Revision:**	**0**
Data Date Range	**March 10, 2025 to March 16, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **March 21, 2025**

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/10/2025	5:45:00	7.2	1.586	1	108,076	12.1	274
3/10/2025	6:00:00	7.5	1.548	2.9	108,099	12.2	278
3/10/2025	6:15:00	7.5	1.435	1.5	108,121	13.1	273
3/10/2025	6:30:00	7.5	1.340	1.3	108,142	13.3	271
3/10/2025	6:45:00	7.5	1.624	1.3	108,157	14.6	271
3/10/2025	7:00:00	6.9	1.302	1.4	108,171	11.1	282
3/10/2025	7:15:00	7.1	1.681	3.2	108,197	10.8	280
3/10/2025	7:30:00	7.3	1.620	2.3	108,222	10.9	278
3/10/2025	7:45:00	7.3	1.540	2.8	108,246	11.1	273
3/10/2025	8:15:00	7.2	1.597	4.3	108,285	11.2	274
3/10/2025	8:30:00	7.1	1.446	2.1	108,308	11.3	277
3/10/2025	8:45:00	6.9	1.336	2.3	108,329	11.4	279
3/10/2025	9:00:00	7.3	1.575	5.7	108,346	11.7	279
3/10/2025	9:15:00	7.5	0.401	1.3	108,361	11.3	281
3/10/2025	9:30:00	7.4	1.469	1.8	108,383	11	281
3/10/2025	9:45:00	7.2	1.363	2	108,405	11	283
3/10/2025	10:00:00	6.8	1.287	2	108,424	11	283
3/10/2025	10:15:00	7.5	1.586	4.6	108,439	11	283
3/10/2025	10:30:00	7.5	1.453	3.2	108,461	10.9	279
3/10/2025	10:45:00	7.2	1.347	2.6	108,482	11	283
3/10/2025	11:00:00	6.8	1.264	1.4	108,502	11.2	283
3/10/2025	11:15:00	7.4	1.646	1.7	108,515	11.4	284
3/10/2025	11:30:00	7.4	1.533	1.5	108,539	11.9	282
3/10/2025	11:45:00	6.8	1.419	2	108,561	11.2	281
3/10/2025	12:00:00	7.3	1.363	3.8	108,582	11.1	279

FRONTIER-KEMPER MICHELS® joint venture		Eagle Mountain- Woodfibre Gas Pipeline Project- Tunnel Scope	
Title	**WoodFibre Weekly Water Discharge Report**	**Revision:**	**0**
Data Date Range	**March 10, 2025 to March 16, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **March 21, 2025**

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/10/2025	12:15:00	7.5	1.624	4.3	108,592	11.1	282
3/10/2025	12:30:00	7.5	1.552	2.8	108,616	11.1	282
3/10/2025	12:45:00	7.4	1.457	4.7	108,639	11.2	284
3/10/2025	13:00:00	7.3	1.400	2.4	108,660	11.2	283
3/10/2025	13:15:00	7.1	1.665	1.8	108,675	11.2	285
3/10/2025	13:30:00	6.9	1.563	1.5	108,699	11.2	282
3/10/2025	13:45:00	7.3	1.450	2.3	108,721	11.3	282
3/10/2025	14:00:00	7.5	1.393	3.2	108,743	11.3	283
3/10/2025	14:15:00	7.3	1.620	2.7	108,756	11.5	282
3/10/2025	14:30:00	7.2	1.484	3.6	108,779	11.7	282
3/10/2025	14:45:00	7.1	1.408	2.7	108,801	11.9	284
3/10/2025	15:00:00	6.9	1.344	2.5	108,821	11.9	282
3/10/2025	15:30:00	7.6	1.291	2.3	108,837	11.7	279
3/10/2025	15:45:00	7.5	1.238	2.5	108,856	11.9	282
3/10/2025	16:00:00	7.3	1.196	2.4	108,874	11.9	286
3/10/2025	16:15:00	7	1.620	2.9	108,884	11.8	284
3/10/2025	16:45:00	7.5	1.442	2.4	108,930	11.7	281
3/10/2025	17:00:00	7.4	1.382	1.6	108,951	11.6	282
3/10/2025	17:15:00	7.6	1.537	2.3	108,967	11.9	279
3/10/2025	17:30:00	7.6	1.499	1.2	108,990	12.8	277
3/10/2025	17:45:00	7.6	1.347	0.8	109,011	13.8	273
3/10/2025	18:00:00	7.6	1.219	0.9	109,030	14.8	274
3/10/2025	18:15:00	6.5	1.631	4.5	109,040	11.7	297
3/10/2025	18:30:00	7.2	1.465	2.9	109,063	11.7	297
3/10/2025	18:45:00	7.3	1.370	5.1	109,085	11.6	287

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/10/2025	19:00:00	7.4	1.298	2.9	109,105	11.4	283
3/10/2025	19:15:00	7.4	1.692	2.3	109,116	11.1	280
3/10/2025	19:30:00	6.9	1.752	1.6	109,132	11	280
3/10/2025	19:45:00	7.5	1.329	2.4	109,159	11.2	280
3/10/2025	20:00:00	7.1	1.745	1.6	109,170	11.3	282
3/10/2025	20:15:00	7.5	1.980	4.1	109,186	11.1	278
3/10/2025	20:30:00	7.5	1.885	1.9	109,216	11	275
3/10/2025	21:30:00	6.9	1.775	0.7	109,273	11.1	277
3/10/2025	22:00:00	7.3	1.840	0.7	109,319	11.1	274
3/10/2025	22:15:00	7.6	1.790	1.4	109,346	11.2	276
3/10/2025	22:30:00	7.6	1.692	0.5	109,372	11.1	276
3/10/2025	22:45:00	7.3	0.284	6.8	109,377	11.1	277
3/10/2025	23:00:00	7.2	1.593	1.1	109,402	10.8	276
3/10/2025	23:15:00	7.6	1.540	2.6	109,414	10.9	275
3/10/2025	23:30:00	7.5	1.718	3.1	109,429	10.7	278
3/11/2025	0:00:00	7.2	1.635	1.5	109,456	10.6	279
3/11/2025	0:15:00	7.6	0.503	6.4	109,475	10.6	274
3/11/2025	0:30:00	7.7	1.677	1.6	109,495	10.5	269
3/11/2025	0:45:00	7.7	1.601	2.6	109,519	10.5	266
3/11/2025	1:00:00	7.8	1.533	3.6	109,543	10.6	109
3/11/2025	1:15:00	7.9	0.772	6.4	109,565	10.6	109
3/11/2025	1:30:00	7.9	1.586	9.5	109,583	10.6	110
3/11/2025	1:45:00	8	0.560	9.6	109,602	10.6	110
3/11/2025	2:00:00	7.8	1.586	8.7	109,623	10.6	111
3/11/2025	2:15:00	8	1.612	8.7	109,647	10.7	114

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/11/2025	2:45:00	8	1.117	8.6	109,671	11.5	117
3/11/2025	3:15:00	7.9	0.174	10.7	109,703	11	113
3/11/2025	3:30:00	8	1.760	10.7	109,717	10.9	114
3/11/2025	3:45:00	8	1.734	9.9	109,743	10.9	114
3/11/2025	4:00:00	8	1.101	7.8	109,767	11	116
3/11/2025	4:15:00	8	1.726	5.6	109,789	11.1	117
3/11/2025	4:30:00	8	1.650	2.7	109,814	11.3	119
3/11/2025	4:45:00	7.9	1.582	1.1	109,839	11.3	118
3/11/2025	5:00:00	7.9	1.003	0.7	109,861	11.4	117
3/11/2025	5:15:00	7.9	1.662	0.4	109,882	11.3	118
3/11/2025	5:30:00	7.9	1.548	0	109,906	11.4	119
3/11/2025	5:45:00	7.9	0.000	0.2	109,914	11.9	119
3/11/2025	6:00:00	7.9	0.859	0.8	109,916	13.3	258
3/11/2025	6:15:00	7.8	1.646	0	109,936	11.4	117
3/11/2025	6:30:00	7.9	1.597	0.1	109,961	11.4	119
3/11/2025	6:45:00	7.9	1.544	0	109,984	11.4	118
3/11/2025	7:00:00	7.9	0.916	0	110,006	11.3	117
3/11/2025	7:15:00	7.8	1.575	0	110,026	11.2	119
3/11/2025	7:30:00	7.8	1.503	0	110,049	11.1	116
3/11/2025	7:45:00	7.8	1.450	0.6	110,071	11	114
3/11/2025	8:00:00	7.6	0.908	0.1	110,092	11	116
3/11/2025	8:15:00	7.8	1.684	0.6	110,106	10.8	264
3/11/2025	8:30:00	7.8	1.650	1.2	110,131	10.7	264
3/11/2025	8:45:00	7.8	1.612	0.7	110,155	10.7	266
3/11/2025	9:15:00	7.7	1.245	0.3	110,172	10.9	265

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/11/2025	9:30:00	7.7	1.223	0.2	110,191	11.1	267
3/11/2025	9:45:00	7.7	1.158	0.4	110,208	11	264
3/11/2025	10:00:00	7.8	0.238	2.1	110,228	10.9	116
3/11/2025	10:15:00	7.8	1.828	0.4	110,237	10.9	114
3/11/2025	10:30:00	7.8	1.813	0.5	110,265	10.7	113
3/11/2025	10:45:00	7.8	1.771	1	110,292	10.7	111
3/11/2025	11:45:00	7.8	1.840	0.8	110,345	11	268
3/11/2025	12:00:00	7.8	1.881	0.2	110,373	11.2	267
3/11/2025	12:15:00	7.8	1.787	0.2	110,400	11.4	268
3/11/2025	12:30:00	7.9	0.322	1.1	110,416	11.3	117
3/11/2025	12:45:00	7.8	1.794	0.3	110,442	11.3	116
3/11/2025	13:00:00	7.8	1.760	0.4	110,469	11.3	117
3/11/2025	13:15:00	7.8	1.722	1	110,495	11.5	118
3/11/2025	13:30:00	7.8	1.128	0.6	110,510	11.7	117
3/11/2025	13:45:00	7.8	1.881	0.6	110,539	11.6	116
3/11/2025	14:00:00	7.8	1.858	0.9	110,567	11.5	116
3/11/2025	14:15:00	7.9	1.840	0.8	110,594	11.4	116
3/11/2025	14:30:00	7.9	1.105	0.6	110,616	12.2	266
3/11/2025	14:45:00	7.9	1.851	0.9	110,643	11.3	263
3/11/2025	15:45:00	7.9	1.915	0.1	110,703	11.4	117
3/11/2025	16:00:00	7.9	1.866	0	110,731	11.5	117
3/11/2025	16:15:00	7.9	1.855	0	110,759	11.7	119
3/11/2025	16:30:00	8	1.162	2.2	110,781	12.3	119
3/11/2025	16:45:00	7.9	1.893	0	110,809	11.8	119
3/11/2025	17:00:00	7.9	1.840	0	110,837	11.7	116

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/11/2025	17:15:00	7.9	1.813	0.3	110,864	11.7	118
3/11/2025	17:45:00	7.4	1.817	0.2	110,893	11.8	267
3/11/2025	18:15:00	7.5	1.715	0	110,934	11.7	273
3/11/2025	18:30:00	7.5	0.609	1.9	110,952	11.6	273
3/11/2025	18:45:00	7.5	1.923	0	110,980	11.7	274
3/11/2025	19:00:00	7.4	1.851	0	111,008	11.8	273
3/11/2025	19:15:00	7.5	1.790	0	111,036	11.9	273
3/11/2025	19:30:00	7.4	1.143	0	111,057	13	273
3/11/2025	19:45:00	7.6	1.798	0.2	111,084	11.9	269
3/11/2025	20:00:00	7.4	1.942	0.5	111,100	11.6	269
3/11/2025	20:15:00	7.6	1.851	0.4	111,128	11.8	269
3/11/2025	20:30:00	7.4	1.783	0.3	111,155	12	269
3/11/2025	20:45:00	7.5	1.760	0.1	111,182	12.1	269
3/11/2025	21:30:00	7.5	1.893	0.8	111,201	12.7	270
3/11/2025	21:45:00	7.7	1.881	0.8	111,230	11.9	267
3/11/2025	22:00:00	7.7	1.927	1.2	111,253	11.9	267
3/11/2025	22:15:00	7.8	1.893	0	111,281	11.9	266
3/11/2025	22:45:00	7.8	1.870	4.6	111,303	12.5	118
3/11/2025	23:00:00	7.9	1.942	0.3	111,332	11.9	118
3/11/2025	23:15:00	7.9	1.919	0.3	111,361	11.9	119
3/11/2025	23:30:00	7.9	1.870	0.6	111,390	12	119
3/12/2025	0:15:00	7.9	1.858	1.5	111,418	13.4	261
3/12/2025	0:30:00	7.9	1.821	0.4	111,446	11.9	118
3/12/2025	1:15:00	7.9	1.779	2.1	111,473	12.1	119
3/12/2025	1:30:00	7.9	1.711	2.3	111,499	12.1	119

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/12/2025	2:00:00	8	1.964	3.2	111,544	12.1	119
3/12/2025	3:00:00	7.9	1.893	1.3	111,570	12.2	119
3/12/2025	3:15:00	7.8	1.771	2	111,597	12.3	119
3/12/2025	3:30:00	7.9	1.665	2.8	111,623	12.4	119
3/12/2025	3:45:00	8	1.177	3.5	111,646	12.5	119
3/12/2025	4:00:00	8	1.699	4	111,668	12.4	119
3/12/2025	4:15:00	8	1.601	2.9	111,693	12.4	119
3/12/2025	4:45:00	8	1.643	5.7	111,723	12.3	119
3/12/2025	5:00:00	7.8	1.556	7.7	111,747	12	119
3/12/2025	5:15:00	7.7	1.457	5.9	111,769	12	119
3/12/2025	5:30:00	7.6	1.064	10.6	111,786	12.6	268
3/12/2025	6:15:00	7.6	1.616	1.5	111,806	12	273
3/12/2025	6:30:00	7.7	1.684	1.8	111,823	11.5	272
3/12/2025	6:45:00	7.7	1.605	1.9	111,847	11.4	269
3/12/2025	7:00:00	7.8	1.484	1.6	111,870	11.4	270
3/12/2025	7:15:00	7.8	1.575	1.1	111,893	11.5	269
3/12/2025	7:30:00	7.9	1.851	3.2	111,905	11.2	266
3/12/2025	7:45:00	7.9	1.737	5	111,931	11.3	270
3/12/2025	8:00:00	7.9	1.737	7.6	111,957	11.3	268
3/12/2025	8:15:00	7.9	1.669	3.7	111,983	11.4	267
3/12/2025	8:30:00	8	1.972	3.2	112,000	11.2	116
3/12/2025	8:45:00	8	1.836	4.1	112,029	11.2	117
3/12/2025	9:00:00	8	1.745	4.7	112,056	11.2	117
3/12/2025	9:15:00	8	1.639	6.6	112,081	11.3	117
3/12/2025	9:30:00	8	1.923	5.4	112,099	12.1	266

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/12/2025	9:45:00	8	1.805	4.9	112,127	11.5	118
3/12/2025	10:00:00	8	1.684	4.1	112,153	11.4	263
3/12/2025	10:15:00	8	1.533	5.9	112,177	11.3	266
3/12/2025	10:30:00	8	1.771	3.1	112,194	11.5	266
3/12/2025	10:45:00	7.9	1.601	2.7	112,219	10.7	267
3/12/2025	11:00:00	7.9	1.480	1.5	112,242	10.7	271
3/12/2025	12:15:00	7.9	1.389	0.9	112,262	10.9	271
3/12/2025	12:30:00	7.9	1.552	1.7	112,280	10.9	265
3/12/2025	12:45:00	7.9	1.427	0.9	112,303	10.9	266
3/12/2025	13:15:00	7.9	1.026	6.2	112,322	12.1	268
3/12/2025	13:30:00	7.9	1.919	4.8	112,337	10.9	268
3/12/2025	13:45:00	7.9	1.764	8	112,365	11	265
3/12/2025	14:00:00	7.9	1.590	10	112,385	11.1	268
3/12/2025	15:15:00	7.9	1.832	4.8	112,444	11	270
3/12/2025	15:30:00	7.9	1.711	5.6	112,470	11.1	271
3/12/2025	15:45:00	7.9	1.601	6.7	112,495	11.3	268
3/12/2025	16:15:00	7.9	1.771	6.4	112,534	11.3	268
3/12/2025	16:30:00	7.8	1.662	1.7	112,559	11.4	268
3/12/2025	17:00:00	7.6	1.953	9.2	112,577	11.4	269
3/12/2025	17:15:00	7.6	1.847	0	112,604	11.4	271
3/12/2025	17:30:00	7.6	1.779	1.1	112,631	11.3	271
3/12/2025	17:45:00	7.6	1.688	0.3	112,657	11.3	269
3/12/2025	18:30:00	7.8	1.911	0.8	112,696	11.2	271
3/12/2025	18:45:00	7.9	1.798	1.9	112,724	11.2	269
3/12/2025	19:15:00	7.9	1.881	2	112,768	11.2	269

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/12/2025	19:30:00	7.9	1.775	6.2	112,795	11.3	268
3/12/2025	20:15:00	7.9	0.231	2.1	112,816	11.8	267
3/12/2025	20:30:00	7.9	0.170	1.2	112,836	11.2	117
3/12/2025	20:45:00	7.9	1.870	1.4	112,854	11.1	266
3/12/2025	21:00:00	7.9	1.775	1.7	112,881	11	263
3/12/2025	21:15:00	7.9	1.813	8.4	112,903	11.2	266
3/12/2025	21:30:00	7.9	1.711	1.1	112,929	11.1	266
3/12/2025	21:45:00	7.9	1.132	2.7	112,953	11.1	266
3/12/2025	22:00:00	7.7	1.715	1.7	112,974	11.1	267
3/12/2025	22:15:00	7.7	1.181	2.3	112,999	11.2	271
3/12/2025	22:30:00	7.6	1.699	1.9	113,022	11.2	271
3/12/2025	23:00:00	7.6	1.662	0.9	113,031	11.9	276
3/12/2025	23:15:00	7.6	0.428	1.3	113,050	11.2	273
3/12/2025	23:30:00	7.5	1.911	1.5	113,068	11	273
3/12/2025	23:45:00	7.5	1.196	3.1	113,093	11.2	277
3/13/2025	0:00:00	7.5	1.870	1.1	113,119	11	277
3/13/2025	0:15:00	7.5	1.802	1.3	113,147	11.1	277
3/13/2025	0:30:00	7.5	1.737	1.4	113,173	11.1	277
3/13/2025	1:15:00	7.5	1.669	1.5	113,193	11.2	280
3/13/2025	1:30:00	7.5	1.612	1.2	113,218	11.3	280
3/13/2025	1:45:00	7.5	1.832	1.7	113,239	11.2	280
3/13/2025	2:00:00	7.5	0.477	1.1	113,258	11.3	280
3/13/2025	2:15:00	7.5	1.658	1.7	113,282	11.2	280
3/13/2025	2:30:00	7.6	1.590	1.8	113,306	11.3	280
3/13/2025	2:45:00	7.6	1.673	3.3	113,327	11.4	280

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/13/2025	3:00:00	7.7	1.563	2	113,351	11.3	280
3/13/2025	3:15:00	7.7	1.465	2.4	113,374	11.3	280
3/13/2025	3:45:00	7.7	1.427	4.8	113,374	12	280
3/13/2025	4:00:00	7.7	1.400	3	113,396	11.5	282
3/13/2025	4:15:00	7.7	1.953	9.5	113,404	10.9	280
3/13/2025	4:30:00	7.6	1.734	9.1	113,428	10.8	279
3/13/2025	4:45:00	7.6	1.760	9.5	113,447	10.8	276
3/13/2025	5:30:00	7.6	1.291	9.5	113,456	10.6	274
3/13/2025	6:00:00	7.7	1.461	1.5	113,491	10.4	272
3/13/2025	6:15:00	7.8	1.366	1.1	113,512	10.5	272
3/13/2025	6:30:00	7.8	1.298	1.5	113,532	10.6	272
3/13/2025	6:45:00	7.8	1.313	3.2	113,550	10.9	273
3/13/2025	7:00:00	7.8	1.249	2.7	113,569	11.1	271
3/13/2025	7:15:00	7.8	1.703	5.5	113,580	10.4	271
3/13/2025	7:30:00	7.8	1.590	1.2	113,603	10.4	271
3/13/2025	7:45:00	7.8	1.503	1.1	113,626	10.4	271
3/13/2025	8:00:00	7.8	1.419	1.2	113,648	10.5	271
3/13/2025	8:15:00	7.8	1.438	1.3	113,667	10.7	271
3/13/2025	8:30:00	7.8	0.000	2.6	113,682	10.3	271
3/13/2025	8:45:00	7.8	1.597	3	113,702	10.3	271
3/13/2025	9:00:00	7.9	1.503	5.1	113,725	10.3	271
3/13/2025	9:45:00	7.9	1.378	3.8	113,757	10.3	272
3/13/2025	10:00:00	7.9	0.000	8.8	113,774	10.4	272
3/13/2025	10:15:00	7.8	1.730	2.7	113,794	10.4	271
3/13/2025	10:30:00	7.8	1.631	3.3	113,819	10.4	271

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/13/2025	10:45:00	7.7	1.548	5.7	113,843	10.4	271
3/13/2025	11:15:00	7.7	1.893	3.2	113,882	10.4	272
3/13/2025	11:30:00	7.6	1.768	2.7	113,909	10.4	276
3/13/2025	11:45:00	7.7	1.631	3.4	113,935	10.4	276
3/13/2025	12:00:00	7.7	1.132	2.1	113,957	10.5	276
3/13/2025	12:15:00	7.7	1.684	2.1	113,974	10.4	276
3/13/2025	12:30:00	7.7	1.571	2.1	113,999	10.4	277
3/13/2025	12:45:00	7.7	1.469	2.3	114,021	10.5	278
3/13/2025	13:30:00	7.8	1.374	1.3	114,050	10.5	276
3/13/2025	13:45:00	7.8	1.306	1	114,070	10.6	276
3/13/2025	14:00:00	7.8	0.969	1.8	114,089	10.6	276
3/13/2025	14:15:00	7.8	1.540	1	114,108	10.5	276
3/13/2025	14:30:00	7.8	1.461	1.3	114,130	10.6	276
3/13/2025	14:45:00	7.8	1.389	1.2	114,152	10.7	274
3/13/2025	15:00:00	7.9	1.018	1.6	114,171	10.8	274
3/13/2025	15:15:00	7.8	1.480	1.1	114,189	10.6	273
3/13/2025	15:30:00	7.9	1.404	1.3	114,211	10.6	273
3/13/2025	15:45:00	7.9	1.310	1.7	114,231	10.6	273
3/13/2025	16:00:00	7.9	0.924	2.1	114,250	10.8	273
3/13/2025	16:15:00	7.9	1.234	1.4	114,267	10.7	273
3/13/2025	16:30:00	7.9	0.901	2.1	114,285	10.8	268
3/13/2025	16:45:00	7.9	1.692	3.8	114,296	10.6	266
3/13/2025	17:00:00	7.9	1.575	5.8	114,320	10.6	268
3/13/2025	17:15:00	7.9	1.450	6	114,343	10.6	266
3/13/2025	17:30:00	7.9	0.992	4.9	114,364	10.6	266

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/13/2025	17:45:00	7.9	1.715	3.3	114,374	10.5	266
3/13/2025	18:00:00	7.9	1.533	2.5	114,398	10.5	266
3/13/2025	18:15:00	7.9	1.400	2.4	114,420	10.6	268
3/13/2025	18:30:00	7.9	0.178	2.9	114,440	10.7	268
3/13/2025	18:45:00	7.9	0.000	2.5	114,440	10.8	268
3/13/2025	19:00:00	7.8	0.000	6.2	114,448	10.6	266
3/13/2025	19:15:00	7.9	1.787	2	114,469	10.4	109
3/13/2025	19:30:00	7.9	1.624	2.1	114,494	10.5	109
3/13/2025	19:45:00	7.9	1.514	2.4	114,518	10.5	255
3/13/2025	20:00:00	7.9	1.101	2.5	114,538	10.6	112
3/13/2025	20:15:00	7.9	1.794	2.4	114,554	10.5	111
3/13/2025	20:30:00	7.9	0.360	2.3	114,566	10.7	110
3/13/2025	20:45:00	7.9	1.571	5.5	114,577	10.6	264
3/13/2025	21:00:00	7.9	1.476	1.8	114,600	10.5	264
3/13/2025	21:15:00	7.9	1.616	3	114,618	10.5	264
3/13/2025	21:30:00	7.9	1.514	2.4	114,642	10.5	264
3/13/2025	21:45:00	7.9	1.419	2.4	114,664	10.5	266
3/13/2025	22:00:00	7.9	1.711	16	114,680	10.5	268
3/13/2025	22:15:00	7.9	1.582	4.1	114,705	10.5	266
3/13/2025	22:30:00	7.9	1.484	4.1	114,727	10.6	268
3/13/2025	22:45:00	7.9	0.507	7.9	114,746	10.6	268
3/13/2025	23:00:00	8	1.643	5	114,767	10.6	267
3/13/2025	23:15:00	8	1.533	2.5	114,790	10.8	268
3/13/2025	23:30:00	8	1.442	4.7	114,813	10.9	269
3/13/2025	23:45:00	7.4	1.026	1.9	114,832	11.2	267

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/14/2025	0:00:00	7.5	0.265	4.4	114,846	10.9	272
3/14/2025	0:15:00	7.8	1.499	1.4	114,869	11	271
3/14/2025	0:30:00	7.3	1.196	2.2	114,890	11.4	271
3/14/2025	0:45:00	7.2	0.942	2	114,906	11.8	272
3/14/2025	1:15:00	7.1	0.356	3.1	114,918	10.8	277
3/14/2025	1:30:00	7.1	0.151	1.7	114,931	10.8	281
3/14/2025	1:45:00	7.2	1.809	1.3	114,960	11	281
3/14/2025	2:30:00	7.7	0.151	3.5	114,983	10.9	274
3/14/2025	2:45:00	7.6	1.703	0.8	115,009	10.9	276
3/14/2025	3:00:00	7.7	1.582	0.6	115,034	11	274
3/14/2025	3:15:00	7.8	1.469	2	115,057	11.2	274
3/14/2025	3:30:00	7.8	1.086	1.7	115,075	12.5	271
3/14/2025	3:45:00	7.8	1.370	3.2	115,096	11.5	271
3/14/2025	4:00:00	7.9	1.253	3	115,116	11.7	271
3/14/2025	4:15:00	7.9	1.154	6.6	115,134	12.1	274
3/14/2025	4:30:00	7.8	0.859	7.3	115,149	14.1	274
3/14/2025	5:00:00	7.2	1.329	7	115,168	11.6	274
3/14/2025	5:15:00	7.2	1.083	5.2	115,186	11.8	279
3/14/2025	5:30:00	7.2	0.927	7.7	115,201	12	280
3/14/2025	5:45:00	7	0.322	11.9	115,212	11.6	281
3/14/2025	6:15:00	7.5	1.302	3.7	115,232	11.5	287
3/14/2025	6:30:00	7.6	0.288	8.6	115,237	12.3	285
3/14/2025	6:45:00	7.7	2.396	3	115,256	11.3	280
3/14/2025	7:00:00	7.7	2.146	0.4	115,290	10.8	278
3/14/2025	7:15:00	7.7	2.104	0.6	115,322	10.7	275

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/14/2025	7:30:00	7.8	2.150	2.3	115,346	10.8	272
3/14/2025	8:00:00	7.8	2.176	0.5	115,372	10.6	268
3/14/2025	8:15:00	7.7	2.139	0.4	115,404	10.5	271
3/14/2025	8:30:00	7.7	2.150	1.3	115,433	10.6	272
3/14/2025	9:15:00	7.7	2.135	0.4	115,475	10.4	275
3/14/2025	9:30:00	7.7	2.154	0.6	115,504	10.5	273
3/14/2025	9:45:00	7.7	2.150	0	115,537	10.7	274
3/14/2025	10:30:00	7.7	2.188	1.2	115,576	10.7	274
3/14/2025	10:45:00	7.7	2.165	1.6	115,608	10.6	276
3/14/2025	11:45:00	7.7	1.908	0.9	115,672	10.7	279
3/14/2025	12:00:00	7.7	1.817	0.3	115,700	10.7	279
3/14/2025	12:15:00	7.7	1.923	0.7	115,729	10.8	279
3/14/2025	12:30:00	7.7	1.949	9	115,753	10.8	279
3/14/2025	13:00:00	7.7	1.949	14.8	115,763	11.8	281
3/14/2025	13:15:00	7.7	1.953	3.3	115,791	11.1	275
3/14/2025	13:30:00	7.7	1.953	1.7	115,813	11.2	274
3/14/2025	13:45:00	7.8	1.949	0.3	115,842	11	271
3/14/2025	14:00:00	7.8	1.930	1.1	115,870	11	273
3/14/2025	14:15:00	7.8	1.908	2.3	115,899	10.9	272
3/14/2025	14:45:00	7.8	1.927	3.9	115,910	11.2	276
3/14/2025	15:00:00	7.7	1.915	2.6	115,939	10.9	274
3/14/2025	15:15:00	7.7	1.927	6.8	115,968	10.9	274
3/14/2025	15:30:00	7.7	1.927	8	115,983	10.9	274
3/14/2025	16:00:00	7.7	1.949	2.3	116,004	11	276
3/14/2025	16:15:00	7.7	1.949	4.7	116,026	11	276

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/14/2025	16:30:00	7.7	1.953	8	116,040	11.1	276
3/14/2025	17:15:00	7.7	1.987	2.6	116,084	10.9	272
3/14/2025	17:30:00	7.7	1.976	3.2	116,110	10.9	272
3/14/2025	17:45:00	7.7	1.957	3.7	116,140	10.9	271
3/14/2025	18:30:00	7.7	1.991	2.7	116,175	11.1	269
3/14/2025	18:45:00	7.8	1.976	2.2	116,205	11.1	269
3/14/2025	19:00:00	7.8	2.245	5.9	116,237	11	269
3/14/2025	19:30:00	7.8	1.805	9.3	116,241	11.2	268
3/14/2025	19:45:00	7.8	2.112	0.6	116,258	11.4	268
3/14/2025	20:00:00	7.8	2.123	0.3	116,290	11.2	268
3/14/2025	20:15:00	7.4	2.127	0.9	116,319	11.2	269
3/14/2025	20:30:00	7.3	1.737	0.8	116,345	11.2	273
3/14/2025	21:15:00	7.1	2.279	0.8	116,378	10.9	281
3/14/2025	21:30:00	7.2	2.241	0.6	116,412	10.8	281
3/14/2025	22:00:00	7	0.977	5.7	116,427	10.8	282
3/14/2025	22:15:00	7.2	2.214	0.4	116,459	10.7	282
3/14/2025	22:30:00	7.4	2.210	2.4	116,493	10.8	281
3/14/2025	23:00:00	7.5	1.779	1	116,514	10.9	278
3/14/2025	23:15:00	7.6	2.180	0.3	116,534	10.7	279
3/15/2025	0:00:00	7.7	2.173	0.3	116,582	10.9	273
3/15/2025	0:15:00	7.7	2.252	0.8	116,607	10.8	271
3/15/2025	0:45:00	7.7	2.252	0.6	116,627	10.8	272
3/15/2025	1:30:00	7.7	2.222	0.7	116,658	10.8	271
3/15/2025	1:45:00	7.5	2.218	0.9	116,691	10.6	276
3/15/2025	2:00:00	7.7	2.203	2.6	116,724	10.6	272

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/15/2025	2:15:00	7.7	2.214	2.2	116,757	10.6	271
3/15/2025	2:45:00	7.7	2.180	1.1	116,780	10.5	269
3/15/2025	3:00:00	7.8	1.438	4.1	116,812	10.6	271
3/15/2025	3:15:00	7.8	2.184	0.5	116,840	10.5	267
3/15/2025	3:45:00	7.8	2.192	0.5	116,871	10.6	271
3/15/2025	4:15:00	7.8	2.222	0.5	116,889	10.8	269
3/15/2025	4:30:00	7.8	2.222	0.6	116,922	10.5	271
3/15/2025	4:45:00	7.8	2.173	0.3	116,955	10.5	271
3/15/2025	5:30:00	7.8	2.222	0.1	117,003	10.5	274
3/15/2025	5:45:00	7.4	2.180	0.2	117,036	10.4	278
3/15/2025	6:00:00	7.3	2.203	0.3	117,065	10.5	278
3/15/2025	6:30:00	7.4	2.218	0.2	117,089	10.5	281
3/15/2025	6:45:00	7.7	2.176	0.4	117,122	10.4	281
3/15/2025	7:00:00	7.7	2.233	0.7	117,145	10.3	277
3/15/2025	7:30:00	7.7	2.203	0.2	117,171	10.5	276
3/15/2025	7:45:00	7.8	2.188	0.2	117,204	10.5	274
3/15/2025	8:15:00	7.8	2.214	0.2	117,227	11.5	273
3/15/2025	8:30:00	7.8	2.195	0.3	117,261	10.6	271
3/15/2025	8:45:00	7.8	2.161	0.2	117,293	10.6	271
3/15/2025	9:15:00	7.8	1.726	0.2	117,317	10.8	266
3/15/2025	9:30:00	7.8	2.207	0.1	117,348	10.6	267
3/15/2025	9:45:00	7.8	2.169	0.5	117,381	10.5	269
3/15/2025	10:15:00	7.8	1.756	0	117,393	10.8	267
3/15/2025	10:30:00	7.9	2.207	0	117,424	10.8	118
3/15/2025	11:15:00	7.9	1.696	0	117,461	11.1	117

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/15/2025	11:30:00	7.9	2.150	0	117,492	10.8	117
3/15/2025	11:45:00	7.9	2.127	0.2	117,524	10.8	116
3/15/2025	14:00:00	7.9	2.173	0.5	117,547	10.4	113
3/15/2025	14:15:00	7.9	2.135	0.4	117,580	10.4	113
3/15/2025	14:30:00	7.9	2.097	0.6	117,612	10.5	114
3/15/2025	15:15:00	7.9	2.142	0	117,654	11.1	118
3/15/2025	15:30:00	7.9	1.684	0.5	117,682	11.3	118
3/15/2025	16:15:00	7.9	2.169	0.1	117,733	11.1	117
3/15/2025	16:30:00	7.9	2.150	1.2	117,765	11.2	117
3/15/2025	17:15:00	7.8	2.192	0	117,808	11.2	267
3/15/2025	17:30:00	7.8	2.154	0	117,841	11.1	267
3/15/2025	18:15:00	7.8	2.169	0.6	117,892	10.7	268
3/15/2025	18:30:00	7.8	2.131	0.1	117,924	10.8	269
3/15/2025	19:15:00	7.8	2.131	0	117,968	11.1	117
3/15/2025	19:30:00	7.9	1.688	2.1	117,995	11.2	119
3/15/2025	20:00:00	7.9	2.161	0	118,011	12.6	262
3/15/2025	20:15:00	7.9	2.173	0.2	118,043	11	114
3/15/2025	20:30:00	7.9	2.150	0.1	118,075	10.8	114
3/15/2025	21:15:00	7.8	2.135	0	118,125	10.9	117
3/15/2025	21:30:00	7.9	2.093	0	118,157	11	119
3/15/2025	22:00:00	7.8	2.169	0	118,171	12.5	266
3/15/2025	22:15:00	7.9	2.154	0	118,203	11.1	119
3/15/2025	22:30:00	7.9	1.098	0	118,233	11.1	119
3/15/2025	23:00:00	7.9	2.226	0	118,249	11.6	266
3/15/2025	23:15:00	7.9	2.188	0	118,282	11.3	268

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/16/2025	0:00:00	7.9	2.169	0	118,335	11.3	267
3/16/2025	0:15:00	7.9	2.139	0.1	118,367	11.1	117
3/16/2025	0:45:00	7.9	2.139	0	118,388	11.6	119
3/16/2025	1:00:00	7.9	2.101	1.4	118,419	11.3	119
3/16/2025	2:00:00	7.8	0.185	0	118,467	12.5	266
3/16/2025	3:00:00	7.8	2.112	0	118,504	11	273
3/16/2025	3:15:00	7.9	2.074	0	118,536	11	269
3/16/2025	3:45:00	7.7	2.104	0	118,550	11.4	268
3/16/2025	4:00:00	7.9	2.074	0	118,581	11.1	119
3/16/2025	4:15:00	7.9	2.033	0	118,612	11	119
3/16/2025	4:45:00	7.9	1.109	1.1	118,624	12	119
3/16/2025	5:00:00	7.7	2.139	0	118,648	10.9	118
3/16/2025	5:15:00	7.9	2.104	0	118,679	10.8	119
3/16/2025	6:00:00	7.9	2.051	0	118,723	11.1	119
3/16/2025	6:15:00	7.9	2.036	0	118,754	11	119
3/16/2025	6:30:00	7.9	1.991	0	118,784	11	119
3/16/2025	7:15:00	7.9	2.002	0	118,826	11.1	119
3/16/2025	7:30:00	7.9	1.491	3.3	118,855	11	119
3/16/2025	7:45:00	7.9	2.120	0	118,882	11	119
3/16/2025	8:30:00	7.9	1.609	0	118,925	10.8	118
3/16/2025	8:45:00	7.9	2.101	0	118,954	10.8	119
3/16/2025	9:00:00	7.9	2.055	0	118,985	10.7	117
3/16/2025	9:30:00	7.9	1.624	0	118,993	11.7	268
3/16/2025	9:45:00	7.9	2.165	0	119,022	11	119
3/16/2025	10:00:00	7.9	2.086	0	119,054	10.9	119

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/16/2025	10:45:00	7.9	2.036	0	119,094	10.9	119
3/16/2025	11:00:00	7.9	2.089	0	119,121	10.8	119
3/16/2025	11:15:00	7.9	2.040	0	119,152	10.7	119
3/16/2025	12:00:00	7.9	2.165	0.5	119,190	11.2	119
3/16/2025	12:15:00	7.9	2.135	0	119,222	10.8	119
3/16/2025	12:30:00	7.9	2.063	0	119,253	10.7	117
3/16/2025	13:00:00	7.9	1.639	0.8	119,262	11.3	119
3/16/2025	13:15:00	7.9	2.150	0	119,293	10.9	119
3/16/2025	13:30:00	7.9	2.097	0	119,324	10.8	117
3/16/2025	14:15:00	7.9	2.169	0	119,361	11.1	119
3/16/2025	14:30:00	7.9	2.146	0	119,393	10.9	119
3/16/2025	14:45:00	7.9	2.086	0.9	119,425	10.9	119
3/16/2025	15:15:00	7.9	1.699	0.2	119,438	11.6	119
3/16/2025	15:30:00	7.9	2.142	0	119,469	10.9	119
3/16/2025	15:45:00	8	2.116	0	119,501	10.9	119
3/16/2025	16:30:00	7.9	2.055	0.3	119,522	13.3	267
3/16/2025	16:45:00	7.9	2.074	0	119,553	10.9	119
3/16/2025	17:00:00	7.9	2.059	0	119,584	10.8	119
3/16/2025	17:15:00	7.9	2.010	0	119,615	10.8	119
3/16/2025	17:30:00	7.9	1.976	0.6	119,645	10.7	116
3/16/2025	18:00:00	7.9	0.973	1.2	119,655	12.1	266
3/16/2025	18:15:00	7.9	2.112	3.2	119,675	12.9	266
3/16/2025	18:30:00	7.9	2.089	0	119,707	11.1	117
3/16/2025	18:45:00	7.9	2.078	0	119,738	11	118
3/16/2025	19:30:00	7.9	2.070	0	119,778	11.2	119

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/16/2025	19:45:00	7.9	2.040	0.2	119,809	10.9	115
3/16/2025	20:00:00	7.9	2.169	0.1	119,834	10.7	267
3/16/2025	20:45:00	7.9	2.161	0	119,859	11	268
3/16/2025	21:00:00	7.9	2.157	0	119,884	10.9	269
3/16/2025	21:15:00	7.9	2.142	0	119,915	11	268
3/16/2025	22:00:00	7.9	2.108	0	119,954	11.2	268
3/16/2025	22:15:00	7.5	2.074	0	119,985	11	268
3/16/2025	22:30:00	7.8	2.040	0.6	120,016	11.1	268
3/16/2025	23:00:00	7.8	2.025	2.2	120,035	12.7	267
3/16/2025	23:15:00	7.9	0.636	1.6	120,061	11.2	119
3/16/2025	23:30:00	7.9	2.161	0.2	120,080	10.9	117
3/16/2025	23:45:00	7.5	0.428	0.2	120,109	10.9	272

Table 3. In-Situ Parameters

Date	Time	Temperature °C	DO mg/L	Conductivity SPC-uS/cm	SAL-ppt	pH	ORP (mV)	NTU
03/10/2025	03:07:44PM	11.8	11.00	163.4	0.08	7.76	137.3	4.15
03/11/2025	05:09:35AM	10.9	11.21	144.2	0.07	7.50	148.6	2.04
03/12/2025	01:21:15PM	11.7	11.22	355.1	0.17	7.11	149.7	3.56
03/13/2025	12:56:12PM	11.3	11.34	256.1	0.08	7.43	112.83	2.45
03/14/2025	11:14:08AM	14.1	8.55	160.7	0.08	8.15	125.8	1.86
03/15/2025	09:22:54AM	12.1	10.9	143.1	0.08	7.67	133.5	2.98
03/16/2025	10:43:34AM	13.8	10.97	145.6	0.07	7.70	146.2	2.66

3. Calibration Log:

Table 4. Calibration Log

Date	Unit	pH	Conductivity/Temp.	Salinity	NTU
3/14/2025	YSI	✓	✓	✓	✓
3/14/2025	WTP	✓	N/A	N/A	✓

APPENDIX A: WTP Log

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/10/2025	0:00:00	7.5	1.616	17	107,625	Open	11.5	276
3/10/2025	0:15:00	7.4	0.337	3.1	107,650	Open	11.4	277
3/10/2025	0:30:00	7.5	0.367	3.4	107,655	Open	12.3	281
3/10/2025	0:45:00	7	2.014	2.8	107,676	Open	11.3	278
3/10/2025	1:00:00	7	1.870	0.6	107,703	Open	11.3	275
3/10/2025	1:15:00	7	1.976	2.9	107,733	Open	11.2	276
3/10/2025	1:30:00	7.6	0.000	1.2	107,758	Open	11.2	276
3/10/2025	1:45:00	7.6	0.170	1.8	107,760	Open	11.9	276
3/10/2025	2:00:00	7	1.351	0.3	107,771	Open	11.3	278
3/10/2025	2:15:00	7	1.942	0.7	107,799	Open	11.2	278
3/10/2025	2:30:00	7.6	1.934	1.7	107,828	Open	11.3	275
3/10/2025	2:45:00	7.5	0.333	1.1	107,855	Open	11.4	277
3/10/2025	3:00:00	7.5	0.299	1.2	107,859	Open	12.3	276
3/10/2025	3:15:00	7.5	0.299	1.1	107,864	Open	12.9	275
3/10/2025	3:30:00	7.2	1.896	7.5	107,886	Open	11.2	275
3/10/2025	3:45:00	6.9	0.413	16	107,896	Closed	11.2	277
3/10/2025	4:00:00	7.5	1.207	6	107,918	Open	11.4	279
3/10/2025	4:15:00	7.5	1.813	1.5	107,937	Open	11.8	276
3/10/2025	4:30:00	7.6	1.741	3.1	107,963	Open	12.1	274
3/10/2025	4:45:00	7.4	1.643	3.8	107,989	Open	11.9	279
3/10/2025	5:00:00	7.6	1.548	2.5	108,012	Open	12.2	281
3/10/2025	5:15:00	7.3	1.696	2.6	108,035	Open	12	281
3/10/2025	5:30:00	7.5	1.688	1.2	108,051	Open	12.1	276
3/10/2025	5:45:00	7.2	1.586	1	108,076	Open	12.1	274

FRONTIER-KEMPER MICHELS® joint venture		Eagle Mountain- Woodfibre Gas Pipeline Project- Tunnel Scope	
Title	**WoodFibre Weekly Water Discharge Report**	**Revision:**	**0**
Data Date Range	**March 10, 2025 to March 16, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **March 21, 2025**

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/10/2025	6:00:00	7.5	1.548	2.9	108,099	Open	12.2	278
3/10/2025	6:15:00	7.5	1.435	1.5	108,121	Open	13.1	273
3/10/2025	6:30:00	7.5	1.340	1.3	108,142	Open	13.3	271
3/10/2025	6:45:00	7.5	1.624	1.3	108,157	Open	14.6	271
3/10/2025	7:00:00	6.9	1.302	1.4	108,171	Open	11.1	282
3/10/2025	7:15:00	7.1	1.681	3.2	108,197	Open	10.8	280
3/10/2025	7:30:00	7.3	1.620	2.3	108,222	Open	10.9	278
3/10/2025	7:45:00	7.3	1.540	2.8	108,246	Open	11.1	273
3/10/2025	8:00:00	7.3	1.934	19.2	108,262	Closed	11.2	272
3/10/2025	8:15:00	7.2	1.597	4.3	108,285	Open	11.2	274
3/10/2025	8:30:00	7.1	1.446	2.1	108,308	Open	11.3	277
3/10/2025	8:45:00	6.9	1.336	2.3	108,329	Open	11.4	279
3/10/2025	9:00:00	7.3	1.575	5.7	108,346	Open	11.7	279
3/10/2025	9:15:00	7.5	0.401	1.3	108,361	Open	11.3	281
3/10/2025	9:30:00	7.4	1.469	1.8	108,383	Open	11	281
3/10/2025	9:45:00	7.2	1.363	2	108,405	Open	11	283
3/10/2025	10:00:00	6.8	1.287	2	108,424	Open	11	283
3/10/2025	10:15:00	7.5	1.586	4.6	108,439	Open	11	283
3/10/2025	10:30:00	7.5	1.453	3.2	108,461	Open	10.9	279
3/10/2025	10:45:00	7.2	1.347	2.6	108,482	Open	11	283
3/10/2025	11:00:00	6.8	1.264	1.4	108,502	Open	11.2	283
3/10/2025	11:15:00	7.4	1.646	1.7	108,515	Open	11.4	284
3/10/2025	11:30:00	7.4	1.533	1.5	108,539	Open	11.9	282
3/10/2025	11:45:00	6.8	1.419	2	108,561	Open	11.2	281
3/10/2025	12:00:00	7.3	1.363	3.8	108,582	Open	11.1	279
3/10/2025	12:15:00	7.5	1.624	4.3	108,592	Open	11.1	282

FRONTIER-KEMPER MICHELS® joint venture		Eagle Mountain- Woodfibre Gas Pipeline Project- Tunnel Scope	
Title	**WoodFibre Weekly Water Discharge Report**	**Revision:**	**0**
Data Date Range	**March 10, 2025 to March 16, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **March 21, 2025**

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/10/2025	12:30:00	7.5	1.552	2.8	108,616	Open	11.1	282
3/10/2025	12:45:00	7.4	1.457	4.7	108,639	Open	11.2	284
3/10/2025	13:00:00	7.3	1.400	2.4	108,660	Open	11.2	283
3/10/2025	13:15:00	7.1	1.665	1.8	108,675	Open	11.2	285
3/10/2025	13:30:00	6.9	1.563	1.5	108,699	Open	11.2	282
3/10/2025	13:45:00	7.3	1.450	2.3	108,721	Open	11.3	282
3/10/2025	14:00:00	7.5	1.393	3.2	108,743	Open	11.3	283
3/10/2025	14:15:00	7.3	1.620	2.7	108,756	Open	11.5	282
3/10/2025	14:30:00	7.2	1.484	3.6	108,779	Open	11.7	282
3/10/2025	14:45:00	7.1	1.408	2.7	108,801	Open	11.9	284
3/10/2025	15:00:00	6.9	1.344	2.5	108,821	Open	11.9	282
3/10/2025	15:15:00	7.3	0.000	1.1	108,824	Closed	13.3	116
3/10/2025	15:30:00	7.6	1.291	2.3	108,837	Open	11.7	279
3/10/2025	15:45:00	7.5	1.238	2.5	108,856	Open	11.9	282
3/10/2025	16:00:00	7.3	1.196	2.4	108,874	Open	11.9	286
3/10/2025	16:15:00	7	1.620	2.9	108,884	Open	11.8	284
3/10/2025	16:30:00	6.9	1.567	2.5	108,908	Closed	11.7	281
3/10/2025	16:45:00	7.5	1.442	2.4	108,930	Open	11.7	281
3/10/2025	17:00:00	7.4	1.382	1.6	108,951	Open	11.6	282
3/10/2025	17:15:00	7.6	1.537	2.3	108,967	Open	11.9	279
3/10/2025	17:30:00	7.6	1.499	1.2	108,990	Open	12.8	277
3/10/2025	17:45:00	7.6	1.347	0.8	109,011	Open	13.8	273
3/10/2025	18:00:00	7.6	1.219	0.9	109,030	Open	14.8	274
3/10/2025	18:15:00	6.5	1.631	4.5	109,040	Open	11.7	297
3/10/2025	18:30:00	7.2	1.465	2.9	109,063	Open	11.7	297
3/10/2025	18:45:00	7.3	1.370	5.1	109,085	Open	11.6	287

FRONTIER-KEMPER MICHELS® joint venture		Eagle Mountain- Woodfibre Gas Pipeline Project- Tunnel Scope	
Title	**WoodFibre Weekly Water Discharge Report**	**Revision:**	**0**
Data Date Range	**March 10, 2025 to March 16, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **March 21, 2025**

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/10/2025	19:00:00	7.4	1.298	2.9	109,105	Open	11.4	283
3/10/2025	19:15:00	7.4	1.692	2.3	109,116	Open	11.1	280
3/10/2025	19:30:00	6.9	1.752	1.6	109,132	Open	11	280
3/10/2025	19:45:00	7.5	1.329	2.4	109,159	Open	11.2	280
3/10/2025	20:00:00	7.1	1.745	1.6	109,170	Open	11.3	282
3/10/2025	20:15:00	7.5	1.980	4.1	109,186	Open	11.1	278
3/10/2025	20:30:00	7.5	1.885	1.9	109,216	Open	11	275
3/10/2025	20:45:00	7.5	0.874	10.3	109,237	Closed	11	272
3/10/2025	21:00:00	7.5	0.000	1.5	109,256	Closed	10.9	273
3/10/2025	21:15:00	7.5	0.000	2	109,256	Closed	11.2	276
3/10/2025	21:30:00	6.9	1.775	0.7	109,273	Open	11.1	277
3/10/2025	21:45:00	6.8	0.874	25.1	109,293	Closed	11.2	276
3/10/2025	22:00:00	7.3	1.840	0.7	109,319	Open	11.1	274
3/10/2025	22:15:00	7.6	1.790	1.4	109,346	Open	11.2	276
3/10/2025	22:30:00	7.6	1.692	0.5	109,372	Open	11.1	276
3/10/2025	22:45:00	7.3	0.284	6.8	109,377	Open	11.1	277
3/10/2025	23:00:00	7.2	1.593	1.1	109,402	Open	10.8	276
3/10/2025	23:15:00	7.6	1.540	2.6	109,414	Open	10.9	275
3/10/2025	23:30:00	7.5	1.718	3.1	109,429	Open	10.7	278
3/10/2025	23:45:00	7.6	0.000	1.4	109,443	Closed	10.8	274
3/11/2025	0:00:00	7.2	1.635	1.5	109,456	Open	10.6	279
3/11/2025	0:15:00	7.6	0.503	6.4	109,475	Open	10.6	274
3/11/2025	0:30:00	7.7	1.677	1.6	109,495	Open	10.5	269
3/11/2025	0:45:00	7.7	1.601	2.6	109,519	Open	10.5	266
3/11/2025	1:00:00	7.8	1.533	3.6	109,543	Open	10.6	109
3/11/2025	1:15:00	7.9	0.772	6.4	109,565	Open	10.6	109

FRONTIER-KEMPER MICHELS® joint venture		Eagle Mountain- Woodfibre Gas Pipeline Project- Tunnel Scope	
Title	**WoodFibre Weekly Water Discharge Report**	**Revision:**	**0**
Data Date Range	**March 10, 2025 to March 16, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **March 21, 2025**

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/11/2025	1:30:00	7.9	1.586	9.5	109,583	Open	10.6	110
3/11/2025	1:45:00	8	0.560	9.6	109,602	Open	10.6	110
3/11/2025	2:00:00	7.8	1.586	8.7	109,623	Open	10.6	111
3/11/2025	2:15:00	8	1.612	8.7	109,647	Open	10.7	114
3/11/2025	2:30:00	8	0.000	8	109,652	Closed	11.2	116
3/11/2025	2:45:00	8	1.117	8.6	109,671	Open	11.5	117
3/11/2025	3:00:00	8	0.235	10	109,689	Closed	11.1	117
3/11/2025	3:15:00	7.9	0.174	10.7	109,703	Open	11	113
3/11/2025	3:30:00	8	1.760	10.7	109,717	Open	10.9	114
3/11/2025	3:45:00	8	1.734	9.9	109,743	Open	10.9	114
3/11/2025	4:00:00	8	1.101	7.8	109,767	Open	11	116
3/11/2025	4:15:00	8	1.726	5.6	109,789	Open	11.1	117
3/11/2025	4:30:00	8	1.650	2.7	109,814	Open	11.3	119
3/11/2025	4:45:00	7.9	1.582	1.1	109,839	Open	11.3	118
3/11/2025	5:00:00	7.9	1.003	0.7	109,861	Open	11.4	117
3/11/2025	5:15:00	7.9	1.662	0.4	109,882	Open	11.3	118
3/11/2025	5:30:00	7.9	1.548	0	109,906	Open	11.4	119
3/11/2025	5:45:00	7.9	0.000	0.2	109,914	Open	11.9	119
3/11/2025	6:00:00	7.9	0.859	0.8	109,916	Open	13.3	258
3/11/2025	6:15:00	7.8	1.646	0	109,936	Open	11.4	117
3/11/2025	6:30:00	7.9	1.597	0.1	109,961	Open	11.4	119
3/11/2025	6:45:00	7.9	1.544	0	109,984	Open	11.4	118
3/11/2025	7:00:00	7.9	0.916	0	110,006	Open	11.3	117
3/11/2025	7:15:00	7.8	1.575	0	110,026	Open	11.2	119
3/11/2025	7:30:00	7.8	1.503	0	110,049	Open	11.1	116
3/11/2025	7:45:00	7.8	1.450	0.6	110,071	Open	11	114

FRONTIER-KEMPER MICHELS® joint venture		Eagle Mountain- Woodfibre Gas Pipeline Project- Tunnel Scope	
Title	**WoodFibre Weekly Water Discharge Report**	**Revision:**	**0**
Data Date Range	**March 10, 2025 to March 16, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **March 21, 2025**

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/11/2025	8:00:00	7.6	0.908	0.1	110,092	Open	11	116
3/11/2025	8:15:00	7.8	1.684	0.6	110,106	Open	10.8	264
3/11/2025	8:30:00	7.8	1.650	1.2	110,131	Open	10.7	264
3/11/2025	8:45:00	7.8	1.612	0.7	110,155	Open	10.7	266
3/11/2025	9:00:00	7.8	0.000	0.6	110,161	Closed	10.9	266
3/11/2025	9:15:00	7.7	1.245	0.3	110,172	Open	10.9	265
3/11/2025	9:30:00	7.7	1.223	0.2	110,191	Open	11.1	267
3/11/2025	9:45:00	7.7	1.158	0.4	110,208	Open	11	264
3/11/2025	10:00:00	7.8	0.238	2.1	110,228	Open	10.9	116
3/11/2025	10:15:00	7.8	1.828	0.4	110,237	Open	10.9	114
3/11/2025	10:30:00	7.8	1.813	0.5	110,265	Open	10.7	113
3/11/2025	10:45:00	7.8	1.771	1	110,292	Open	10.7	111
3/11/2025	11:00:00	7.8	0.000	29.3	110,315	Closed	10.7	113
3/11/2025	11:15:00	7.8	0.000	0.9	110,328	Closed	10.6	267
3/11/2025	11:30:00	7.8	0.000	0.2	110,328	Closed	11.2	267
3/11/2025	11:45:00	7.8	1.840	0.8	110,345	Open	11	268
3/11/2025	12:00:00	7.8	1.881	0.2	110,373	Open	11.2	267
3/11/2025	12:15:00	7.8	1.787	0.2	110,400	Open	11.4	268
3/11/2025	12:30:00	7.9	0.322	1.1	110,416	Open	11.3	117
3/11/2025	12:45:00	7.8	1.794	0.3	110,442	Open	11.3	116
3/11/2025	13:00:00	7.8	1.760	0.4	110,469	Open	11.3	117
3/11/2025	13:15:00	7.8	1.722	1	110,495	Open	11.5	118
3/11/2025	13:30:00	7.8	1.128	0.6	110,510	Open	11.7	117
3/11/2025	13:45:00	7.8	1.881	0.6	110,539	Open	11.6	116
3/11/2025	14:00:00	7.8	1.858	0.9	110,567	Open	11.5	116
3/11/2025	14:15:00	7.9	1.840	0.8	110,594	Open	11.4	116

FRONTIER-KEMPER MICHELS® joint venture		Eagle Mountain- Woodfibre Gas Pipeline Project- Tunnel Scope	
Title	**WoodFibre Weekly Water Discharge Report**	**Revision:**	**0**
Data Date Range	**March 10, 2025 to March 16, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **March 21, 2025**

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/11/2025	14:30:00	7.9	1.105	0.6	110,616	Open	12.2	266
3/11/2025	14:45:00	7.9	1.851	0.9	110,643	Open	11.3	263
3/11/2025	15:00:00	7.9	0.000	0.3	110,660	Closed	11.4	265
3/11/2025	15:15:00	7.9	0.000	0.7	110,660	Closed	12	264
3/11/2025	15:30:00	7.9	0.587	10.9	110,675	Closed	11.4	116
3/11/2025	15:45:00	7.9	1.915	0.1	110,703	Open	11.4	117
3/11/2025	16:00:00	7.9	1.866	0	110,731	Open	11.5	117
3/11/2025	16:15:00	7.9	1.855	0	110,759	Open	11.7	119
3/11/2025	16:30:00	8	1.162	2.2	110,781	Open	12.3	119
3/11/2025	16:45:00	7.9	1.893	0	110,809	Open	11.8	119
3/11/2025	17:00:00	7.9	1.840	0	110,837	Open	11.7	116
3/11/2025	17:15:00	7.9	1.813	0.3	110,864	Open	11.7	118
3/11/2025	17:30:00	7.9	0.000	0.4	110,884	Closed	12.7	119
3/11/2025	17:45:00	7.4	1.817	0.2	110,893	Open	11.8	267
3/11/2025	18:00:00	7.4	0.000	0	110,910	Closed	11.8	272
3/11/2025	18:15:00	7.5	1.715	0	110,934	Open	11.7	273
3/11/2025	18:30:00	7.5	0.609	1.9	110,952	Open	11.6	273
3/11/2025	18:45:00	7.5	1.923	0	110,980	Open	11.7	274
3/11/2025	19:00:00	7.4	1.851	0	111,008	Open	11.8	273
3/11/2025	19:15:00	7.5	1.790	0	111,036	Open	11.9	273
3/11/2025	19:30:00	7.4	1.143	0	111,057	Open	13	273
3/11/2025	19:45:00	7.6	1.798	0.2	111,084	Open	11.9	269
3/11/2025	20:00:00	7.4	1.942	0.5	111,100	Open	11.6	269
3/11/2025	20:15:00	7.6	1.851	0.4	111,128	Open	11.8	269
3/11/2025	20:30:00	7.4	1.783	0.3	111,155	Open	12	269
3/11/2025	20:45:00	7.5	1.760	0.1	111,182	Open	12.1	269

FRONTIER-KEMPER MICHELS® joint venture		Eagle Mountain- Woodfibre Gas Pipeline Project- Tunnel Scope	
Title	**WoodFibre Weekly Water Discharge Report**	**Revision:**	**0**
Data Date Range	**March 10, 2025 to March 16, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **March 21, 2025**

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/11/2025	21:00:00	7.6	0.000	0	111,194	Closed	13.5	271
3/11/2025	21:15:00	7.6	0.000	0	111,194	Closed	14.4	267
3/11/2025	21:30:00	7.5	1.893	0.8	111,201	Open	12.7	270
3/11/2025	21:45:00	7.7	1.881	0.8	111,230	Open	11.9	267
3/11/2025	22:00:00	7.7	1.927	1.2	111,253	Open	11.9	267
3/11/2025	22:15:00	7.8	1.893	0	111,281	Open	11.9	266
3/11/2025	22:30:00	7.8	0.000	0	111,284	Closed	12.6	263
3/11/2025	22:45:00	7.8	1.870	4.6	111,303	Open	12.5	118
3/11/2025	23:00:00	7.9	1.942	0.3	111,332	Open	11.9	118
3/11/2025	23:15:00	7.9	1.919	0.3	111,361	Open	11.9	119
3/11/2025	23:30:00	7.9	1.870	0.6	111,390	Open	12	119
3/11/2025	23:45:00	8	0.000	0.2	111,415	Closed	12.1	119
3/12/2025	0:00:00	7.9	0.000	0.1	111,415	Closed	13	262
3/12/2025	0:15:00	7.9	1.858	1.5	111,418	Open	13.4	261
3/12/2025	0:30:00	7.9	1.821	0.4	111,446	Open	11.9	118
3/12/2025	0:45:00	7.9	0.000	0	111,453	Closed	12.4	119
3/12/2025	1:00:00	7.9	0.000	0	111,453	Closed	13.4	262
3/12/2025	1:15:00	7.9	1.779	2.1	111,473	Open	12.1	119
3/12/2025	1:30:00	7.9	1.711	2.3	111,499	Open	12.1	119
3/12/2025	1:45:00	7.9	0.492	80.6	111,523	Closed	12.2	119
3/12/2025	2:00:00	8	1.964	3.2	111,544	Open	12.1	119
3/12/2025	2:15:00	8	0.000	2.7	111,550	Closed	12.7	119
3/12/2025	2:30:00	7.9	0.000	1.8	111,550	Closed	13.6	119
3/12/2025	2:45:00	7.9	0.000	2.3	111,550	Closed	14.4	258
3/12/2025	3:00:00	7.9	1.893	1.3	111,570	Open	12.2	119
3/12/2025	3:15:00	7.8	1.771	2	111,597	Open	12.3	119

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/12/2025	3:30:00	7.9	1.665	2.8	111,623	Open	12.4	119
3/12/2025	3:45:00	8	1.177	3.5	111,646	Open	12.5	119
3/12/2025	4:00:00	8	1.699	4	111,668	Open	12.4	119
3/12/2025	4:15:00	8	1.601	2.9	111,693	Open	12.4	119
3/12/2025	4:30:00	8	0.746	15.2	111,709	Closed	12.3	118
3/12/2025	4:45:00	8	1.643	5.7	111,723	Open	12.3	119
3/12/2025	5:00:00	7.8	1.556	7.7	111,747	Open	12	119
3/12/2025	5:15:00	7.7	1.457	5.9	111,769	Open	12	119
3/12/2025	5:30:00	7.6	1.064	10.6	111,786	Open	12.6	268
3/12/2025	5:45:00	7.6	0.674	2.7	111,798	Closed	12.1	270
3/12/2025	6:00:00	7.6	0.000	2.9	111,798	Closed	12.9	273
3/12/2025	6:15:00	7.6	1.616	1.5	111,806	Open	12	273
3/12/2025	6:30:00	7.7	1.684	1.8	111,823	Open	11.5	272
3/12/2025	6:45:00	7.7	1.605	1.9	111,847	Open	11.4	269
3/12/2025	7:00:00	7.8	1.484	1.6	111,870	Open	11.4	270
3/12/2025	7:15:00	7.8	1.575	1.1	111,893	Open	11.5	269
3/12/2025	7:30:00	7.9	1.851	3.2	111,905	Open	11.2	266
3/12/2025	7:45:00	7.9	1.737	5	111,931	Open	11.3	270
3/12/2025	8:00:00	7.9	1.737	7.6	111,957	Open	11.3	268
3/12/2025	8:15:00	7.9	1.669	3.7	111,983	Open	11.4	267
3/12/2025	8:30:00	8	1.972	3.2	112,000	Open	11.2	116
3/12/2025	8:45:00	8	1.836	4.1	112,029	Open	11.2	117
3/12/2025	9:00:00	8	1.745	4.7	112,056	Open	11.2	117
3/12/2025	9:15:00	8	1.639	6.6	112,081	Open	11.3	117
3/12/2025	9:30:00	8	1.923	5.4	112,099	Open	12.1	266
3/12/2025	9:45:00	8	1.805	4.9	112,127	Open	11.5	118

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/12/2025	10:00:00	8	1.684	4.1	112,153	Open	11.4	263
3/12/2025	10:15:00	8	1.533	5.9	112,177	Open	11.3	266
3/12/2025	10:30:00	8	1.771	3.1	112,194	Open	11.5	266
3/12/2025	10:45:00	7.9	1.601	2.7	112,219	Open	10.7	267
3/12/2025	11:00:00	7.9	1.480	1.5	112,242	Open	10.7	271
3/12/2025	12:15:00	7.9	1.389	0.9	112,262	Open	10.9	271
3/12/2025	12:30:00	7.9	1.552	1.7	112,280	Open	10.9	265
3/12/2025	12:45:00	7.9	1.427	0.9	112,303	Open	10.9	266
3/12/2025	13:00:00	7.9	0.000	0.4	112,320	Closed	11.2	268
3/12/2025	13:15:00	7.9	1.026	6.2	112,322	Open	12.1	268
3/12/2025	13:30:00	7.9	1.919	4.8	112,337	Open	10.9	268
3/12/2025	13:45:00	7.9	1.764	8	112,365	Open	11	265
3/12/2025	14:00:00	7.9	1.590	10	112,385	Open	11.1	268
3/12/2025	14:15:00	7.9	0.000	7.9	112,401	Closed	11.3	268
3/12/2025	14:30:00	7.9	0.000	8	112,401	Closed	11.8	269
3/12/2025	14:45:00	7.9	1.385	11.3	112,412	Closed	11.1	269
3/12/2025	15:00:00	7.9	2.014	32.1	112,421	Closed	11	267
3/12/2025	15:15:00	7.9	1.832	4.8	112,444	Open	11	270
3/12/2025	15:30:00	7.9	1.711	5.6	112,470	Open	11.1	271
3/12/2025	15:45:00	7.9	1.601	6.7	112,495	Open	11.3	268
3/12/2025	16:00:00	7.9	1.998	10.9	112,509	Closed	11.4	119
3/12/2025	16:15:00	7.9	1.771	6.4	112,534	Open	11.3	268
3/12/2025	16:30:00	7.8	1.662	1.7	112,559	Open	11.4	268
3/12/2025	16:45:00	7.7	0.000	0.7	112,574	Closed	11.7	270
3/12/2025	17:00:00	7.6	1.953	9.2	112,577	Open	11.4	269
3/12/2025	17:15:00	7.6	1.847	0	112,604	Open	11.4	271

FRONTIER-KEMPER MICHELS® joint venture		Eagle Mountain- Woodfibre Gas Pipeline Project- Tunnel Scope	
Title	**WoodFibre Weekly Water Discharge Report**	**Revision:**	**0**
Data Date Range	**March 10, 2025 to March 16, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **March 21, 2025**

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/12/2025	17:30:00	7.6	1.779	1.1	112,631	Open	11.3	271
3/12/2025	17:45:00	7.6	1.688	0.3	112,657	Open	11.3	269
3/12/2025	18:00:00	7.7	0.167	3.7	112,673	Closed	11.1	267
3/12/2025	18:15:00	7.7	0.000	3.2	112,673	Closed	11.8	271
3/12/2025	18:30:00	7.8	1.911	0.8	112,696	Open	11.2	271
3/12/2025	18:45:00	7.9	1.798	1.9	112,724	Open	11.2	269
3/12/2025	19:00:00	7.9	2.017	10.4	112,740	Closed	11.2	268
3/12/2025	19:15:00	7.9	1.881	2	112,768	Open	11.2	269
3/12/2025	19:30:00	7.9	1.775	6.2	112,795	Open	11.3	268
3/12/2025	19:45:00	7.9	0.000	2.4	112,809	Closed	11.4	266
3/12/2025	20:00:00	7.9	1.593	22.9	112,809	Closed	12.5	271
3/12/2025	20:15:00	7.9	0.231	2.1	112,816	Open	11.8	267
3/12/2025	20:30:00	7.9	0.170	1.2	112,836	Open	11.2	117
3/12/2025	20:45:00	7.9	1.870	1.4	112,854	Open	11.1	266
3/12/2025	21:00:00	7.9	1.775	1.7	112,881	Open	11	263
3/12/2025	21:15:00	7.9	1.813	8.4	112,903	Open	11.2	266
3/12/2025	21:30:00	7.9	1.711	1.1	112,929	Open	11.1	266
3/12/2025	21:45:00	7.9	1.132	2.7	112,953	Open	11.1	266
3/12/2025	22:00:00	7.7	1.715	1.7	112,974	Open	11.1	267
3/12/2025	22:15:00	7.7	1.181	2.3	112,999	Open	11.2	271
3/12/2025	22:30:00	7.6	1.699	1.9	113,022	Open	11.2	271
3/12/2025	22:45:00	7.6	0.000	0.8	113,028	Closed	11.5	274
3/12/2025	23:00:00	7.6	1.662	0.9	113,031	Open	11.9	276
3/12/2025	23:15:00	7.6	0.428	1.3	113,050	Open	11.2	273
3/12/2025	23:30:00	7.5	1.911	1.5	113,068	Open	11	273
3/12/2025	23:45:00	7.5	1.196	3.1	113,093	Open	11.2	277

FRONTIER-KEMPER MICHELS® joint venture		Eagle Mountain- Woodfibre Gas Pipeline Project- Tunnel Scope	
Title	**WoodFibre Weekly Water Discharge Report**	**Revision:**	**0**
Data Date Range	**March 10, 2025 to March 16, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **March 21, 2025**

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/13/2025	0:00:00	7.5	1.870	1.1	113,119	Open	11	277
3/13/2025	0:15:00	7.5	1.802	1.3	113,147	Open	11.1	277
3/13/2025	0:30:00	7.5	1.737	1.4	113,173	Open	11.1	277
3/13/2025	0:45:00	7.5	0.000	2	113,182	Closed	11.4	278
3/13/2025	1:00:00	7.5	0.000	1.4	113,182	Closed	11.7	280
3/13/2025	1:15:00	7.5	1.669	1.5	113,193	Open	11.2	280
3/13/2025	1:30:00	7.5	1.612	1.2	113,218	Open	11.3	280
3/13/2025	1:45:00	7.5	1.832	1.7	113,239	Open	11.2	280
3/13/2025	2:00:00	7.5	0.477	1.1	113,258	Open	11.3	280
3/13/2025	2:15:00	7.5	1.658	1.7	113,282	Open	11.2	280
3/13/2025	2:30:00	7.6	1.590	1.8	113,306	Open	11.3	280
3/13/2025	2:45:00	7.6	1.673	3.3	113,327	Open	11.4	280
3/13/2025	3:00:00	7.7	1.563	2	113,351	Open	11.3	280
3/13/2025	3:15:00	7.7	1.465	2.4	113,374	Open	11.3	280
3/13/2025	3:30:00	7.7	0.000	2.4	113,374	Closed	11.6	280
3/13/2025	3:45:00	7.7	1.427	4.8	113,374	Open	12	280
3/13/2025	4:00:00	7.7	1.400	3	113,396	Open	11.5	282
3/13/2025	4:15:00	7.7	1.953	9.5	113,404	Open	10.9	280
3/13/2025	4:30:00	7.6	1.734	9.1	113,428	Open	10.8	279
3/13/2025	4:45:00	7.6	1.760	9.5	113,447	Open	10.8	276
3/13/2025	5:00:00	7.6	1.684	42.7	113,450	Closed	10.9	109
3/13/2025	5:15:00	7.7	0.492	19.5	113,455	Closed	10.8	272
3/13/2025	5:30:00	7.6	1.291	9.5	113,456	Open	10.6	274
3/13/2025	5:45:00	7.6	1.533	10.2	113,469	Closed	10.5	272
3/13/2025	6:00:00	7.7	1.461	1.5	113,491	Open	10.4	272
3/13/2025	6:15:00	7.8	1.366	1.1	113,512	Open	10.5	272

FRONTIER-KEMPER MICHELS® joint venture		Eagle Mountain- Woodfibre Gas Pipeline Project- Tunnel Scope	
Title	**WoodFibre Weekly Water Discharge Report**	**Revision:**	**0**
Data Date Range	**March 10, 2025 to March 16, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **March 21, 2025**

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/13/2025	6:30:00	7.8	1.298	1.5	113,532	Open	10.6	272
3/13/2025	6:45:00	7.8	1.313	3.2	113,550	Open	10.9	273
3/13/2025	7:00:00	7.8	1.249	2.7	113,569	Open	11.1	271
3/13/2025	7:15:00	7.8	1.703	5.5	113,580	Open	10.4	271
3/13/2025	7:30:00	7.8	1.590	1.2	113,603	Open	10.4	271
3/13/2025	7:45:00	7.8	1.503	1.1	113,626	Open	10.4	271
3/13/2025	8:00:00	7.8	1.419	1.2	113,648	Open	10.5	271
3/13/2025	8:15:00	7.8	1.438	1.3	113,667	Open	10.7	271
3/13/2025	8:30:00	7.8	0.000	2.6	113,682	Open	10.3	271
3/13/2025	8:45:00	7.8	1.597	3	113,702	Open	10.3	271
3/13/2025	9:00:00	7.9	1.503	5.1	113,725	Open	10.3	271
3/13/2025	9:15:00	7.9	0.000	6.1	113,747	Closed	10.3	271
3/13/2025	9:30:00	7.9	0.000	3.6	113,747	Closed	10.4	272
3/13/2025	9:45:00	7.9	1.378	3.8	113,757	Open	10.3	272
3/13/2025	10:00:00	7.9	0.000	8.8	113,774	Open	10.4	272
3/13/2025	10:15:00	7.8	1.730	2.7	113,794	Open	10.4	271
3/13/2025	10:30:00	7.8	1.631	3.3	113,819	Open	10.4	271
3/13/2025	10:45:00	7.7	1.548	5.7	113,843	Open	10.4	271
3/13/2025	11:00:00	7.7	0.000	13.2	113,863	Closed	10.4	271
3/13/2025	11:15:00	7.7	1.893	3.2	113,882	Open	10.4	272
3/13/2025	11:30:00	7.6	1.768	2.7	113,909	Open	10.4	276
3/13/2025	11:45:00	7.7	1.631	3.4	113,935	Open	10.4	276
3/13/2025	12:00:00	7.7	1.132	2.1	113,957	Open	10.5	276
3/13/2025	12:15:00	7.7	1.684	2.1	113,974	Open	10.4	276
3/13/2025	12:30:00	7.7	1.571	2.1	113,999	Open	10.4	277
3/13/2025	12:45:00	7.7	1.469	2.3	114,021	Open	10.5	278

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/13/2025	13:00:00	7.7	0.000	2	114,030	Closed	10.6	278
3/13/2025	13:15:00	7.7	1.404	20	114,030	Closed	10.8	279
3/13/2025	13:30:00	7.8	1.374	1.3	114,050	Open	10.5	276
3/13/2025	13:45:00	7.8	1.306	1	114,070	Open	10.6	276
3/13/2025	14:00:00	7.8	0.969	1.8	114,089	Open	10.6	276
3/13/2025	14:15:00	7.8	1.540	1	114,108	Open	10.5	276
3/13/2025	14:30:00	7.8	1.461	1.3	114,130	Open	10.6	276
3/13/2025	14:45:00	7.8	1.389	1.2	114,152	Open	10.7	274
3/13/2025	15:00:00	7.9	1.018	1.6	114,171	Open	10.8	274
3/13/2025	15:15:00	7.8	1.480	1.1	114,189	Open	10.6	273
3/13/2025	15:30:00	7.9	1.404	1.3	114,211	Open	10.6	273
3/13/2025	15:45:00	7.9	1.310	1.7	114,231	Open	10.6	273
3/13/2025	16:00:00	7.9	0.924	2.1	114,250	Open	10.8	273
3/13/2025	16:15:00	7.9	1.234	1.4	114,267	Open	10.7	273
3/13/2025	16:30:00	7.9	0.901	2.1	114,285	Open	10.8	268
3/13/2025	16:45:00	7.9	1.692	3.8	114,296	Open	10.6	266
3/13/2025	17:00:00	7.9	1.575	5.8	114,320	Open	10.6	268
3/13/2025	17:15:00	7.9	1.450	6	114,343	Open	10.6	266
3/13/2025	17:30:00	7.9	0.992	4.9	114,364	Open	10.6	266
3/13/2025	17:45:00	7.9	1.715	3.3	114,374	Open	10.5	266
3/13/2025	18:00:00	7.9	1.533	2.5	114,398	Open	10.5	266
3/13/2025	18:15:00	7.9	1.400	2.4	114,420	Open	10.6	268
3/13/2025	18:30:00	7.9	0.178	2.9	114,440	Open	10.7	268
3/13/2025	18:45:00	7.9	0.000	2.5	114,440	Open	10.8	268
3/13/2025	19:00:00	7.8	0.000	6.2	114,448	Open	10.6	266
3/13/2025	19:15:00	7.9	1.787	2	114,469	Open	10.4	109

FRONTIER-KEMPER MICHELS® joint venture		Eagle Mountain- Woodfibre Gas Pipeline Project- Tunnel Scope	
Title	**WoodFibre Weekly Water Discharge Report**	**Revision:**	**0**
Data Date Range	**March 10, 2025 to March 16, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **March 21, 2025**

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/13/2025	19:30:00	7.9	1.624	2.1	114,494	Open	10.5	109
3/13/2025	19:45:00	7.9	1.514	2.4	114,518	Open	10.5	255
3/13/2025	20:00:00	7.9	1.101	2.5	114,538	Open	10.6	112
3/13/2025	20:15:00	7.9	1.794	2.4	114,554	Open	10.5	111
3/13/2025	20:30:00	7.9	0.360	2.3	114,566	Open	10.7	110
3/13/2025	20:45:00	7.9	1.571	5.5	114,577	Open	10.6	264
3/13/2025	21:00:00	7.9	1.476	1.8	114,600	Open	10.5	264
3/13/2025	21:15:00	7.9	1.616	3	114,618	Open	10.5	264
3/13/2025	21:30:00	7.9	1.514	2.4	114,642	Open	10.5	264
3/13/2025	21:45:00	7.9	1.419	2.4	114,664	Open	10.5	266
3/13/2025	22:00:00	7.9	1.711	16	114,680	Open	10.5	268
3/13/2025	22:15:00	7.9	1.582	4.1	114,705	Open	10.5	266
3/13/2025	22:30:00	7.9	1.484	4.1	114,727	Open	10.6	268
3/13/2025	22:45:00	7.9	0.507	7.9	114,746	Open	10.6	268
3/13/2025	23:00:00	8	1.643	5	114,767	Open	10.6	267
3/13/2025	23:15:00	8	1.533	2.5	114,790	Open	10.8	268
3/13/2025	23:30:00	8	1.442	4.7	114,813	Open	10.9	269
3/13/2025	23:45:00	7.4	1.026	1.9	114,832	Open	11.2	267
3/14/2025	0:00:00	7.5	0.265	4.4	114,846	Open	10.9	272
3/14/2025	0:15:00	7.8	1.499	1.4	114,869	Open	11	271
3/14/2025	0:30:00	7.3	1.196	2.2	114,890	Open	11.4	271
3/14/2025	0:45:00	7.2	0.942	2	114,906	Open	11.8	272
3/14/2025	1:00:00	7	0.401	38.6	114,914	Closed	11	276
3/14/2025	1:15:00	7.1	0.356	3.1	114,918	Open	10.8	277
3/14/2025	1:30:00	7.1	0.151	1.7	114,931	Open	10.8	281
3/14/2025	1:45:00	7.2	1.809	1.3	114,960	Open	11	281

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/14/2025	2:00:00	7.5	0.000	3.6	114,980	Closed	11.2	281
3/14/2025	2:15:00	7.6	0.000	1.9	114,980	Closed	11.8	281
3/14/2025	2:30:00	7.7	0.151	3.5	114,983	Open	10.9	274
3/14/2025	2:45:00	7.6	1.703	0.8	115,009	Open	10.9	276
3/14/2025	3:00:00	7.7	1.582	0.6	115,034	Open	11	274
3/14/2025	3:15:00	7.8	1.469	2	115,057	Open	11.2	274
3/14/2025	3:30:00	7.8	1.086	1.7	115,075	Open	12.5	271
3/14/2025	3:45:00	7.8	1.370	3.2	115,096	Open	11.5	271
3/14/2025	4:00:00	7.9	1.253	3	115,116	Open	11.7	271
3/14/2025	4:15:00	7.9	1.154	6.6	115,134	Open	12.1	274
3/14/2025	4:30:00	7.8	0.859	7.3	115,149	Open	14.1	274
3/14/2025	4:45:00	7.8	0.136	53.6	115,155	Closed	11.5	271
3/14/2025	5:00:00	7.2	1.329	7	115,168	Open	11.6	274
3/14/2025	5:15:00	7.2	1.083	5.2	115,186	Open	11.8	279
3/14/2025	5:30:00	7.2	0.927	7.7	115,201	Open	12	280
3/14/2025	5:45:00	7	0.322	11.9	115,212	Open	11.6	281
3/14/2025	6:00:00	7.1	1.446	29	115,214	Closed	11	287
3/14/2025	6:15:00	7.5	1.302	3.7	115,232	Open	11.5	287
3/14/2025	6:30:00	7.6	0.288	8.6	115,237	Open	12.3	285
3/14/2025	6:45:00	7.7	2.396	3	115,256	Open	11.3	280
3/14/2025	7:00:00	7.7	2.146	0.4	115,290	Open	10.8	278
3/14/2025	7:15:00	7.7	2.104	0.6	115,322	Open	10.7	275
3/14/2025	7:30:00	7.8	2.150	2.3	115,346	Open	10.8	272
3/14/2025	7:45:00	7.8	0.000	0.2	115,356	Closed	11.1	270
3/14/2025	8:00:00	7.8	2.176	0.5	115,372	Open	10.6	268
3/14/2025	8:15:00	7.7	2.139	0.4	115,404	Open	10.5	271

FRONTIER-KEMPER MICHELS® joint venture		Eagle Mountain- Woodfibre Gas Pipeline Project- Tunnel Scope	
Title	**WoodFibre Weekly Water Discharge Report**	**Revision:**	**0**
Data Date Range	**March 10, 2025 to March 16, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **March 21, 2025**

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/14/2025	8:30:00	7.7	2.150	1.3	115,433	Open	10.6	272
3/14/2025	8:45:00	7.8	0.000	0.3	115,452	Closed	10.6	276
3/14/2025	9:00:00	7.7	0.000	0.3	115,452	Closed	10.9	274
3/14/2025	9:15:00	7.7	2.135	0.4	115,475	Open	10.4	275
3/14/2025	9:30:00	7.7	2.154	0.6	115,504	Open	10.5	273
3/14/2025	9:45:00	7.7	2.150	0	115,537	Open	10.7	274
3/14/2025	10:00:00	7.7	0.000	0.1	115,552	Closed	10.9	277
3/14/2025	10:15:00	7.7	0.000	0.2	115,552	Closed	11.3	280
3/14/2025	10:30:00	7.7	2.188	1.2	115,576	Open	10.7	274
3/14/2025	10:45:00	7.7	2.165	1.6	115,608	Open	10.6	276
3/14/2025	11:00:00	7.7	1.631	7.2	115,641	Closed	10.7	275
3/14/2025	11:15:00	7.7	0.000	5.3	115,641	Closed	11	277
3/14/2025	11:30:00	7.7	0.000	0.9	115,652	Closed	10.7	278
3/14/2025	11:45:00	7.7	1.908	0.9	115,672	Open	10.7	279
3/14/2025	12:00:00	7.7	1.817	0.3	115,700	Open	10.7	279
3/14/2025	12:15:00	7.7	1.923	0.7	115,729	Open	10.8	279
3/14/2025	12:30:00	7.7	1.949	9	115,753	Open	10.8	279
3/14/2025	12:45:00	7.7	0.000	12.7	115,763	Closed	11.1	278
3/14/2025	13:00:00	7.7	1.949	14.8	115,763	Open	11.8	281
3/14/2025	13:15:00	7.7	1.953	3.3	115,791	Open	11.1	275
3/14/2025	13:30:00	7.7	1.953	1.7	115,813	Open	11.2	274
3/14/2025	13:45:00	7.8	1.949	0.3	115,842	Open	11	271
3/14/2025	14:00:00	7.8	1.930	1.1	115,870	Open	11	273
3/14/2025	14:15:00	7.8	1.908	2.3	115,899	Open	10.9	272
3/14/2025	14:30:00	7.8	0.000	1.6	115,906	Closed	11.2	276
3/14/2025	14:45:00	7.8	1.927	3.9	115,910	Open	11.2	276

FRONTIER-KEMPER MICHELS® joint venture		Eagle Mountain- Woodfibre Gas Pipeline Project- Tunnel Scope	
Title	**WoodFibre Weekly Water Discharge Report**	**Revision:**	**0**
Data Date Range	**March 10, 2025 to March 16, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **March 21, 2025**

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/14/2025	15:00:00	7.7	1.915	2.6	115,939	Open	10.9	274
3/14/2025	15:15:00	7.7	1.927	6.8	115,968	Open	10.9	274
3/14/2025	15:30:00	7.7	1.927	8	115,983	Open	10.9	274
3/14/2025	15:45:00	7.7	0.000	4.8	115,994	Closed	11.2	274
3/14/2025	16:00:00	7.7	1.949	2.3	116,004	Open	11	276
3/14/2025	16:15:00	7.7	1.949	4.7	116,026	Open	11	276
3/14/2025	16:30:00	7.7	1.953	8	116,040	Open	11.1	276
3/14/2025	16:45:00	7.7	0.000	4.9	116,059	Closed	11.2	276
3/14/2025	17:00:00	7.7	0.000	5.2	116,059	Closed	11.6	276
3/14/2025	17:15:00	7.7	1.987	2.6	116,084	Open	10.9	272
3/14/2025	17:30:00	7.7	1.976	3.2	116,110	Open	10.9	272
3/14/2025	17:45:00	7.7	1.957	3.7	116,140	Open	10.9	271
3/14/2025	18:00:00	7.8	0.000	3.4	116,151	Closed	11.2	271
3/14/2025	18:15:00	7.7	0.000	3.4	116,151	Closed	11.7	273
3/14/2025	18:30:00	7.7	1.991	2.7	116,175	Open	11.1	269
3/14/2025	18:45:00	7.8	1.976	2.2	116,205	Open	11.1	269
3/14/2025	19:00:00	7.8	2.245	5.9	116,237	Open	11	269
3/14/2025	19:15:00	7.8	0.000	5.6	116,237	Closed	11.7	271
3/14/2025	19:30:00	7.8	1.805	9.3	116,241	Open	11.2	268
3/14/2025	19:45:00	7.8	2.112	0.6	116,258	Open	11.4	268
3/14/2025	20:00:00	7.8	2.123	0.3	116,290	Open	11.2	268
3/14/2025	20:15:00	7.4	2.127	0.9	116,319	Open	11.2	269
3/14/2025	20:30:00	7.3	1.737	0.8	116,345	Open	11.2	273
3/14/2025	20:45:00	7.2	0.977	8.6	116,347	Closed	11.5	277
3/14/2025	21:00:00	7.2	0.000	4.7	116,364	Closed	11.1	279
3/14/2025	21:15:00	7.1	2.279	0.8	116,378	Open	10.9	281

FRONTIER-KEMPER MICHELS® joint venture		Eagle Mountain- Woodfibre Gas Pipeline Project- Tunnel Scope	
Title	**WoodFibre Weekly Water Discharge Report**	**Revision:**	**0**
Data Date Range	**March 10, 2025 to March 16, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **March 21, 2025**

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/14/2025	21:30:00	7.2	2.241	0.6	116,412	Open	10.8	281
3/14/2025	21:45:00	7.2	0.000	0.4	116,421	Closed	11.1	282
3/14/2025	22:00:00	7	0.977	5.7	116,427	Open	10.8	282
3/14/2025	22:15:00	7.2	2.214	0.4	116,459	Open	10.7	282
3/14/2025	22:30:00	7.4	2.210	2.4	116,493	Open	10.8	281
3/14/2025	22:45:00	7.5	0.000	0.4	116,497	Closed	11.2	278
3/14/2025	23:00:00	7.5	1.779	1	116,514	Open	10.9	278
3/14/2025	23:15:00	7.6	2.180	0.3	116,534	Open	10.7	279
3/14/2025	23:30:00	7.7	0.382	0.4	116,566	Closed	10.7	279
3/14/2025	23:45:00	7.7	0.000	0.3	116,566	Closed	11.3	276
3/15/2025	0:00:00	7.7	2.173	0.3	116,582	Open	10.9	273
3/15/2025	0:15:00	7.7	2.252	0.8	116,607	Open	10.8	271
3/15/2025	0:30:00	7.7	0.000	0.5	116,620	Closed	10.9	271
3/15/2025	0:45:00	7.7	2.252	0.6	116,627	Open	10.8	272
3/15/2025	1:00:00	7.8	0.000	1.5	116,650	Closed	10.7	273
3/15/2025	1:15:00	7.7	0.000	0.7	116,650	Closed	11.3	274
3/15/2025	1:30:00	7.7	2.222	0.7	116,658	Open	10.8	271
3/15/2025	1:45:00	7.5	2.218	0.9	116,691	Open	10.6	276
3/15/2025	2:00:00	7.7	2.203	2.6	116,724	Open	10.6	272
3/15/2025	2:15:00	7.7	2.214	2.2	116,757	Open	10.6	271
3/15/2025	2:30:00	7.7	0.000	0.8	116,760	Closed	11	271
3/15/2025	2:45:00	7.7	2.180	1.1	116,780	Open	10.5	269
3/15/2025	3:00:00	7.8	1.438	4.1	116,812	Open	10.6	271
3/15/2025	3:15:00	7.8	2.184	0.5	116,840	Open	10.5	267
3/15/2025	3:30:00	7.8	0.000	0.5	116,852	Closed	10.7	271
3/15/2025	3:45:00	7.8	2.192	0.5	116,871	Open	10.6	271

FRONTIER-KEMPER MICHELS® joint venture		Eagle Mountain- Woodfibre Gas Pipeline Project- Tunnel Scope	
Title	**WoodFibre Weekly Water Discharge Report**	**Revision:**	**0**
Data Date Range	**March 10, 2025 to March 16, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **March 21, 2025**

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/15/2025	4:00:00	7.8	0.000	0.5	116,885	Closed	10.6	268
3/15/2025	4:15:00	7.8	2.222	0.5	116,889	Open	10.8	269
3/15/2025	4:30:00	7.8	2.222	0.6	116,922	Open	10.5	271
3/15/2025	4:45:00	7.8	2.173	0.3	116,955	Open	10.5	271
3/15/2025	5:00:00	7.8	0.034	0.4	116,976	Closed	10.4	273
3/15/2025	5:15:00	7.8	0.000	0.7	116,976	Closed	10.9	273
3/15/2025	5:30:00	7.8	2.222	0.1	117,003	Open	10.5	274
3/15/2025	5:45:00	7.4	2.180	0.2	117,036	Open	10.4	278
3/15/2025	6:00:00	7.3	2.203	0.3	117,065	Open	10.5	278
3/15/2025	6:15:00	7.3	0.000	0.3	117,069	Closed	10.9	281
3/15/2025	6:30:00	7.4	2.218	0.2	117,089	Open	10.5	281
3/15/2025	6:45:00	7.7	2.176	0.4	117,122	Open	10.4	281
3/15/2025	7:00:00	7.7	2.233	0.7	117,145	Open	10.3	277
3/15/2025	7:15:00	7.7	0.000	0.5	117,148	Closed	10.8	278
3/15/2025	7:30:00	7.7	2.203	0.2	117,171	Open	10.5	276
3/15/2025	7:45:00	7.8	2.188	0.2	117,204	Open	10.5	274
3/15/2025	8:00:00	7.8	0.000	0.2	117,226	Closed	10.7	274
3/15/2025	8:15:00	7.8	2.214	0.2	117,227	Open	11.5	273
3/15/2025	8:30:00	7.8	2.195	0.3	117,261	Open	10.6	271
3/15/2025	8:45:00	7.8	2.161	0.2	117,293	Open	10.6	271
3/15/2025	9:00:00	7.8	0.000	0	117,297	Closed	11.2	269
3/15/2025	9:15:00	7.8	1.726	0.2	117,317	Open	10.8	266
3/15/2025	9:30:00	7.8	2.207	0.1	117,348	Open	10.6	267
3/15/2025	9:45:00	7.8	2.169	0.5	117,381	Open	10.5	269
3/15/2025	10:00:00	7.8	0.000	0	117,381	Closed	11	267
3/15/2025	10:15:00	7.8	1.756	0	117,393	Open	10.8	267

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/15/2025	10:30:00	7.9	2.207	0	117,424	Open	10.8	118
3/15/2025	10:45:00	7.9	0.000	0	117,454	Closed	10.7	119
3/15/2025	11:00:00	7.9	0.000	0	117,454	Closed	11.4	267
3/15/2025	11:15:00	7.9	1.696	0	117,461	Open	11.1	117
3/15/2025	11:30:00	7.9	2.150	0	117,492	Open	10.8	117
3/15/2025	11:45:00	7.9	2.127	0.2	117,524	Open	10.8	116
3/15/2025	12:00:00	7.9	0.379	0.1	117,536	Closed	10.7	116
3/15/2025	12:15:00	7.9	0.000	0.4	117,536	Closed	11	266
3/15/2025	12:30:00	7.9	2.063	0.4	117,536	Closed	10.5	113
3/15/2025	12:45:00	7.9	0.000	0.6	117,536	Closed	10.6	111
3/15/2025	13:00:00	7.9	2.123	0.7	117,536	Closed	10.9	111
3/15/2025	13:15:00	7.9	2.135	0.8	117,536	Closed	10.4	113
3/15/2025	13:30:00	7.9	0.000	0.6	117,536	Closed	10.4	111
3/15/2025	13:45:00	7.9	0.000	0.6	117,536	Closed	10.7	266
3/15/2025	14:00:00	7.9	2.173	0.5	117,547	Open	10.4	113
3/15/2025	14:15:00	7.9	2.135	0.4	117,580	Open	10.4	113
3/15/2025	14:30:00	7.9	2.097	0.6	117,612	Open	10.5	114
3/15/2025	14:45:00	7.9	0.000	1.5	117,633	Closed	10.9	118
3/15/2025	15:00:00	7.9	0.000	0	117,633	Closed	11.7	264
3/15/2025	15:15:00	7.9	2.142	0	117,654	Open	11.1	118
3/15/2025	15:30:00	7.9	1.684	0.5	117,682	Open	11.3	118
3/15/2025	15:45:00	7.9	0.000	0	117,710	Closed	11.2	117
3/15/2025	16:00:00	7.9	0.000	0	117,710	Closed	11.7	264
3/15/2025	16:15:00	7.9	2.169	0.1	117,733	Open	11.1	117
3/15/2025	16:30:00	7.9	2.150	1.2	117,765	Open	11.2	117
3/15/2025	16:45:00	7.9	0.322	0	117,790	Closed	11.4	268

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/15/2025	17:00:00	7.8	0.000	0.1	117,790	Closed	11.8	268
3/15/2025	17:15:00	7.8	2.192	0	117,808	Open	11.2	267
3/15/2025	17:30:00	7.8	2.154	0	117,841	Open	11.1	267
3/15/2025	17:45:00	7.8	0.000	0.3	117,863	Closed	11.1	266
3/15/2025	18:00:00	7.8	0.000	0.3	117,863	Closed	11.3	271
3/15/2025	18:15:00	7.8	2.169	0.6	117,892	Open	10.7	268
3/15/2025	18:30:00	7.8	2.131	0.1	117,924	Open	10.8	269
3/15/2025	18:45:00	7.8	0.000	0	117,940	Closed	11.2	269
3/15/2025	19:00:00	7.8	0.000	0	117,940	Closed	12.1	269
3/15/2025	19:15:00	7.8	2.131	0	117,968	Open	11.1	117
3/15/2025	19:30:00	7.9	1.688	2.1	117,995	Open	11.2	119
3/15/2025	19:45:00	7.9	0.000	0.3	118,009	Closed	11.4	119
3/15/2025	20:00:00	7.9	2.161	0	118,011	Open	12.6	262
3/15/2025	20:15:00	7.9	2.173	0.2	118,043	Open	11	114
3/15/2025	20:30:00	7.9	2.150	0.1	118,075	Open	10.8	114
3/15/2025	20:45:00	7.8	0.000	0.5	118,094	Closed	10.9	268
3/15/2025	21:00:00	7.8	0.000	0.1	118,094	Closed	11.3	269
3/15/2025	21:15:00	7.8	2.135	0	118,125	Open	10.9	117
3/15/2025	21:30:00	7.9	2.093	0	118,157	Open	11	119
3/15/2025	21:45:00	7.9	0.000	0	118,169	Closed	11.4	268
3/15/2025	22:00:00	7.8	2.169	0	118,171	Open	12.5	266
3/15/2025	22:15:00	7.9	2.154	0	118,203	Open	11.1	119
3/15/2025	22:30:00	7.9	1.098	0	118,233	Open	11.1	119
3/15/2025	22:45:00	7.9	0.000	0	118,242	Closed	11.4	119
3/15/2025	23:00:00	7.9	2.226	0	118,249	Open	11.6	266
3/15/2025	23:15:00	7.9	2.188	0	118,282	Open	11.3	268

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/15/2025	23:30:00	7.9	0.000	0	118,313	Closed	11.3	119
3/15/2025	23:45:00	7.9	0.000	0	118,313	Closed	12.2	268
3/16/2025	0:00:00	7.9	2.169	0	118,335	Open	11.3	267
3/16/2025	0:15:00	7.9	2.139	0.1	118,367	Open	11.1	117
3/16/2025	0:30:00	7.9	0.000	0	118,380	Closed	11.5	119
3/16/2025	0:45:00	7.9	2.139	0	118,388	Open	11.6	119
3/16/2025	1:00:00	7.9	2.101	1.4	118,419	Open	11.3	119
3/16/2025	1:15:00	7.9	2.029	0	118,450	Closed	11.3	119
3/16/2025	1:30:00	7.9	0.000	0	118,463	Closed	11.2	119
3/16/2025	1:45:00	7.9	0.000	0	118,463	Closed	12.1	266
3/16/2025	2:00:00	7.8	0.185	0	118,467	Open	12.5	266
3/16/2025	2:15:00	7.5	2.169	0	118,472	Closed	11	269
3/16/2025	2:30:00	7.6	2.294	0	118,472	Closed	10.9	272
3/16/2025	2:45:00	7.7	1.173	0	118,474	Closed	11.3	276
3/16/2025	3:00:00	7.8	2.112	0	118,504	Open	11	273
3/16/2025	3:15:00	7.9	2.074	0	118,536	Open	11	269
3/16/2025	3:30:00	7.8	0.000	0	118,543	Closed	11.5	271
3/16/2025	3:45:00	7.7	2.104	0	118,550	Open	11.4	268
3/16/2025	4:00:00	7.9	2.074	0	118,581	Open	11.1	119
3/16/2025	4:15:00	7.9	2.033	0	118,612	Open	11	119
3/16/2025	4:30:00	7.9	0.000	0	118,621	Closed	11.4	119
3/16/2025	4:45:00	7.9	1.109	1.1	118,624	Open	12	119
3/16/2025	5:00:00	7.7	2.139	0	118,648	Open	10.9	118
3/16/2025	5:15:00	7.9	2.104	0	118,679	Open	10.8	119
3/16/2025	5:30:00	7.9	0.000	0	118,707	Closed	10.9	119
3/16/2025	5:45:00	7.9	0.000	0	118,707	Closed	11.9	264

FRONTIER-KEMPER MICHELS® joint venture		Eagle Mountain- Woodfibre Gas Pipeline Project- Tunnel Scope	
Title	**WoodFibre Weekly Water Discharge Report**	**Revision:**	**0**
Data Date Range	**March 10, 2025 to March 16, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **March 21, 2025**

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/16/2025	6:00:00	7.9	2.051	0	118,723	Open	11.1	119
3/16/2025	6:15:00	7.9	2.036	0	118,754	Open	11	119
3/16/2025	6:30:00	7.9	1.991	0	118,784	Open	11	119
3/16/2025	6:45:00	7.9	0.000	0	118,798	Closed	11.3	119
3/16/2025	7:00:00	7.9	0.000	0	118,798	Closed	12.3	263
3/16/2025	7:15:00	7.9	2.002	0	118,826	Open	11.1	119
3/16/2025	7:30:00	7.9	1.491	3.3	118,855	Open	11	119
3/16/2025	7:45:00	7.9	2.120	0	118,882	Open	11	119
3/16/2025	8:00:00	7.9	0.000	0	118,895	Closed	11.3	117
3/16/2025	8:15:00	7.9	2.135	0.4	118,895	Closed	11.9	264
3/16/2025	8:30:00	7.9	1.609	0	118,925	Open	10.8	118
3/16/2025	8:45:00	7.9	2.101	0	118,954	Open	10.8	119
3/16/2025	9:00:00	7.9	2.055	0	118,985	Open	10.7	117
3/16/2025	9:15:00	7.9	0.000	0	118,989	Closed	11.2	266
3/16/2025	9:30:00	7.9	1.624	0	118,993	Open	11.7	268
3/16/2025	9:45:00	7.9	2.165	0	119,022	Open	11	119
3/16/2025	10:00:00	7.9	2.086	0	119,054	Open	10.9	119
3/16/2025	10:15:00	7.9	0.000	0	119,083	Closed	10.9	119
3/16/2025	10:30:00	7.9	0.000	0	119,083	Closed	13.4	269
3/16/2025	10:45:00	7.9	2.036	0	119,094	Open	10.9	119
3/16/2025	11:00:00	7.9	2.089	0	119,121	Open	10.8	119
3/16/2025	11:15:00	7.9	2.040	0	119,152	Open	10.7	119
3/16/2025	11:30:00	8	0.000	0	119,171	Closed	11	119
3/16/2025	11:45:00	7.9	0.000	0	119,171	Closed	12.2	265
3/16/2025	12:00:00	7.9	2.165	0.5	119,190	Open	11.2	119
3/16/2025	12:15:00	7.9	2.135	0	119,222	Open	10.8	119

FRONTIER-KEMPER MICHELS® joint venture		Eagle Mountain- Woodfibre Gas Pipeline Project- Tunnel Scope	
Title	**WoodFibre Weekly Water Discharge Report**	**Revision:**	**0**
Data Date Range	**March 10, 2025 to March 16, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **March 21, 2025**

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/16/2025	12:30:00	7.9	2.063	0	119,253	Open	10.7	117
3/16/2025	12:45:00	7.9	0.000	0	119,256	Closed	11.3	117
3/16/2025	13:00:00	7.9	1.639	0.8	119,262	Open	11.3	119
3/16/2025	13:15:00	7.9	2.150	0	119,293	Open	10.9	119
3/16/2025	13:30:00	7.9	2.097	0	119,324	Open	10.8	117
3/16/2025	13:45:00	7.9	0.000	0	119,340	Closed	11.2	119
3/16/2025	14:00:00	7.9	0.000	0	119,340	Closed	12.3	263
3/16/2025	14:15:00	7.9	2.169	0	119,361	Open	11.1	119
3/16/2025	14:30:00	7.9	2.146	0	119,393	Open	10.9	119
3/16/2025	14:45:00	7.9	2.086	0.9	119,425	Open	10.9	119
3/16/2025	15:00:00	7.9	0.000	0	119,429	Closed	11.7	119
3/16/2025	15:15:00	7.9	1.699	0.2	119,438	Open	11.6	119
3/16/2025	15:30:00	7.9	2.142	0	119,469	Open	10.9	119
3/16/2025	15:45:00	8	2.116	0	119,501	Open	10.9	119
3/16/2025	16:00:00	8	0.000	0	119,520	Closed	11.1	119
3/16/2025	16:15:00	7.9	0.000	0	119,520	Closed	12.2	266
3/16/2025	16:30:00	7.9	2.055	0.3	119,522	Open	13.3	267
3/16/2025	16:45:00	7.9	2.074	0	119,553	Open	10.9	119
3/16/2025	17:00:00	7.9	2.059	0	119,584	Open	10.8	119
3/16/2025	17:15:00	7.9	2.010	0	119,615	Open	10.8	119
3/16/2025	17:30:00	7.9	1.976	0.6	119,645	Open	10.7	116
3/16/2025	17:45:00	7.9	0.000	0	119,649	Closed	11.3	266
3/16/2025	18:00:00	7.9	0.973	1.2	119,655	Open	12.1	266
3/16/2025	18:15:00	7.9	2.112	3.2	119,675	Open	12.9	266
3/16/2025	18:30:00	7.9	2.089	0	119,707	Open	11.1	117
3/16/2025	18:45:00	7.9	2.078	0	119,738	Open	11	118

FRONTIER-KEMPER MICHELS® joint venture		Eagle Mountain- Woodfibre Gas Pipeline Project- Tunnel Scope	
Title	**WoodFibre Weekly Water Discharge Report**	**Revision:**	**0**
Data Date Range	**March 10, 2025 to March 16, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **March 21, 2025**

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
3/16/2025	19:00:00	7.9	0.000	0	119,749	Closed	11.4	268
3/16/2025	19:15:00	7.9	0.000	0	119,749	Closed	12.6	266
3/16/2025	19:30:00	7.9	2.070	0	119,778	Open	11.2	119
3/16/2025	19:45:00	7.9	2.040	0.2	119,809	Open	10.9	115
3/16/2025	20:00:00	7.9	2.169	0.1	119,834	Open	10.7	267
3/16/2025	20:15:00	7.9	0.000	0.1	119,846	Closed	10.9	267
3/16/2025	20:30:00	7.9	0.000	0	119,846	Closed	11.6	269
3/16/2025	20:45:00	7.9	2.161	0	119,859	Open	11	268
3/16/2025	21:00:00	7.9	2.157	0	119,884	Open	10.9	269
3/16/2025	21:15:00	7.9	2.142	0	119,915	Open	11	268
3/16/2025	21:30:00	7.9	0.000	0	119,942	Closed	11	119
3/16/2025	21:45:00	7.9	0.000	0	119,942	Closed	12.1	268
3/16/2025	22:00:00	7.9	2.108	0	119,954	Open	11.2	268
3/16/2025	22:15:00	7.5	2.074	0	119,985	Open	11	268
3/16/2025	22:30:00	7.8	2.040	0.6	120,016	Open	11.1	268
3/16/2025	22:45:00	7.8	0.000	3.8	120,032	Closed	11.4	268
3/16/2025	23:00:00	7.8	2.025	2.2	120,035	Open	12.7	267
3/16/2025	23:15:00	7.9	0.636	1.6	120,061	Open	11.2	119
3/16/2025	23:30:00	7.9	2.161	0.2	120,080	Open	10.9	117
3/16/2025	23:45:00	7.5	0.428	0.2	120,109	Open	10.9	272

Appendix B: Photo Log

Photo 1: No visible sheen observed in the WTP water, March 10

Photo 3: No visible sheen observed in the WTP water, March 11

Appendix D: Woodfibre Site Receiving Environment Documentation

Woodfibre Site Receiving Environment Sample Analysis

TRITON	Sample ID				EAS US1 (Upstream)	EAS DS 1 (Downstream)	Sample or value notes	BCWQ FAL - Short Term	BCWQ FAL - Long Term	BCWQ MAL - Short Term	BCWQ MAL - Long Term
	LAB ID	Reviewed and signed off by:	Fanshawl Shallal	Fanshawl Shallal Ph.D., R.P.Bio.	VA25A0338-001	VA25A0338-002					
	Date Sampled				11-Mar-2025	11-Mar-2025					
	Time Sampled				09:41	10:20					
Analyte	Units	FAL-ST [1,2]	FAL-LT [1,2]	MAL-ST [1]	MAL-LT [1,2]	Water	Water					
In Situ Parameters						N/A	N/A		Guideline notes			
pH (field)	pH units	6.5-9.0	6.5-9.0	7.0-9.7	7.0-9.7	7.02	7.42		If natural pH < 6.5, no statistically significant decrease from background. No restriction in increase except in areas with unique flora or fauna. Unrestricted change permitted within range of 6.5 to 9.0. If natural pH > 9.0, no statistically significant increase from background. Refer to BC Water Quality Guidelines for more information.		Unrestricted change within this range (for protection of mollusc embryo development).	
Temperature (field)	°C	Short-term daily temperature guideline is 19°C for streams with unknown fish distribution Max +/- from BKG 1°C [3]	-	Short-term daily temperature guideline is 19°C for streams with unknown fish distribution Max +/- from BKG 1°C [3]	-	6.4	6.2		Guideline is species-dependent. Short-term daily temperature guideline is 19°C for streams with unknown fish distribution. Refer to footnote 4 for background temperature range for East Creek. Refer to BC Water Quality Guidelines for more information Hourly rate of change not to exceed 1°C Calculation: US value +/- 1 = guideline range		Guideline for marine waters are based on natural ambient conditions. Max and min. 1°C change from natural conditions. Human activities should not cause the temperature of the site should not be altered in amplitude or frequency by human activities. Max rate of any human-induced temperature change not to exceed 0.5°C hourly. Inserts with unknown fish distribution. Refer to footnote 4 for background temperature range for East Creek. Calculation: US value +/- 1 = guideline range	
Conductivity (field)	µS/cm	-	-	-	-	55	45					
Turbidity (field)	NTU	Varies with background, see note Guideline = 10.4	Varies with background, see note Guideline = 4.68 5-week discrete sampling average = 2.68 (DS)	Varies with background, see note Guideline = 10.4	Varies with background, see note Guideline = 4.68 5-week discrete sampling average = 2.68 (DS)	2.4	1.84		Change from background of 8 NTU at any one time for a duration of 24 h in all waters during clear flows or in clear waters. Calculation: US value = 8 + DS guideline Change from background of 8 NTU at any time when background is 8 - 50 NTU during high flows or in turbid waters. Calculation: US value = 1.5 * DS guideline Change from background of 10% when background is > 50 NTU at any time during high flows or in turbid waters. Calculation: US value = (US value*0.1) + DS guideline	Change from background of 2 NTU at any one time for 30 days in clear flows. Note that a rolling average of US values over a 30-day period is required to properly calculate this guideline. Guideline calculated in this spreadsheet using US concentration at the time of sampling.	Change from background of 8 NTU at any one time for a duration of 24 h in all waters during clear flows or in clear waters. Calculation: US value = 8 + DS guideline Change from background of 5 NTU at any time when background is 8 - 50 NTU during high flows or in turbid waters. Calculation: US value = 1.5 * DS guideline Change from background of 10% when background is > 50 NTU at any time during high flows or in turbid waters. Calculation: US value = (US value*0.1) + DS guideline	Change from background of 2 NTU at any one time for 30 days in clear flows. Note that a rolling average of US values over a 30-day period is required to properly calculate this guideline. Guideline calculated in this spreadsheet using US concentration at the time of sampling.
Dissolved Oxygen (field)	mg/L	Varies with life stage, see note	Varies with life stage, see note	Varies with life stage, see note	Varies with life stage, see note	11.31	11.28		Buried embryo/alevin minimum 9 mg/L, all other life stages 5 mg/L. Refer to BC Water Quality Guidelines for more information.	Buried embryo/alevin minimum 11 mg/L, all other life stages 8 mg/L. Refer to BC Water Quality Guidelines for more information.	Buried embryo/alevin minimum 9 mg/L, all other life stages 8 mg/L. Refer to BC Water Quality Guidelines for more information.	Buried embryo/alevin minimum 11 mg/L, all other life stages 8 mg/L. Refer to BC Water Quality Guidelines for more information.
General Parameters												
Hardness (as CaCO3) (total)	mg/L	-	-	-	-	7.32	13					
Total Dissolved Solids	mg/L	-	-	-	-	25	33					
Total Suspended Solids	mg/L	Varies with background, see note Guideline = 28.0	Varies with background, see note Guideline = 8.74 5-week discrete sampling average = 3.74 (DS)	Varies with background, see note Guideline = 28.0	Varies with background, see note Guideline = 8.74 5-week discrete sampling average = 3.74 (DS)	< 3.0	< 3.0		Change from background of 25 mg/L at any one time for duration of 24 h in all waters during clear flows or in clear waters. Calculation: US value + 25 = DS guideline Change from background of 10 mg/L at any one time when background 25-100 mg/L during high flows or turbid waters. Calculation: US value + 10 = DS guideline Change from background of 10% when background is > 100 mg/L at any time during high flows or turbid waters. Calculation: US value = (US value*0.1) + DS guideline	Change from background of 5 mg/L @ one time for a duration of 30 days in clear flow. Note that a rolling average of US values over a 30-day period is required to properly calculate this guideline. Guideline calculated in this spreadsheet using US concentration at the time of sampling.	Change from background of 25 mg/L at any one time for duration of 24 h in all waters during clear flows or in clear waters. Calculation: US value + 25 = DS guideline Change from background of 10 mg/L at any one time when background 25-100 mg/L during high flows or turbid waters. Calculation: US value + 10 = DS guideline Change from background of 10% when background is > 100 mg/L at any time during high flows or turbid waters. Calculation: US value = (US value*0.1) + DS guideline	Change from background of 5 mg/L @ one time for a duration of 30 days in clear flow. Note that a rolling average of US values over a 30-day period is required to properly calculate this guideline. Guideline calculated in this spreadsheet using US concentration at the time of sampling.
Dissolved Organic Carbon (DOC)	mg/L	-	-	-	-	2.44	2.2			Long-term (30-day) median within 20% of background median [1]		
Total Alkalinity (CaCO3)	mg/L	-	Categorical	-	-	5.6	10.8			Guideline is for alkalinity (as CaCO3) and categorizes the sensitivity of a water body to acid inputs. Alkalinity < 10 mg/L is considered highly sensitive to acid inputs; 10 - 20 mg/L is considered moderately sensitive to acid inputs; > 20 mg/L is considered low sensitivity.		
Total Sulfide (as S)	mg/L	-	-	-	-	< 0.0015	< 0.0015					
Total Sulfide (un-ionized as H2S)	mg/L	-	0.002	-	-	< 0.0015	< 0.0015			Working guideline		
Total Sulfide (as H2S)	mg/L	-	-	-	-	< 0.0016	< 0.0016					
Anions and Nutrients												
Ammonia	mg/L ammonia-N	Varies with pH and temperature. See note. Guideline = 21.4	Varies with pH and temperature. See note. Guideline = 1.94	Varies with pH and temperature. See note. Guideline = 168	Varies with pH, temperature and salinity. See note. Guideline = 18	< 0.0050	0.0052		Guideline for ammonia as N and is pH and temperature dependent. Refer to Table 27D in BC WQG for guideline values.	Guideline for ammonia as N and is pH and temperature dependent. Refer to Table 27C in BC WQG for guideline values.	Guideline for ammonia as N. Guideline is pH, temperature and salinity dependent. Refer to Table 27A in BC WQG for guideline values.	Guideline for ammonia as N. Guideline is pH, temperature and salinity dependent. Refer to Table 27E in BC WQG for guideline values.
Bromide	mg/L	-	-	-	-	< 0.050	< 0.050					
Chloride	mg/L	600	150	< 110% of background	< 90% of background	0.7	2.08				Human activities should not cause the chloride of marine and estuarine waters to fluctuate by more than 10% of the natural chloride expected at that time and depth.	Human activities should not cause the chloride of marine and estuarine waters to fluctuate by more than 10% of the natural chloride expected at that time and depth.
Fluoride	mg/L	Varies with hardness Guideline = 0.283	-	1.5	-	0.022	0.048		Guideline has interim status. Guideline is calculated with the following equation: Guideline = [- 4.1 * 3 + 30.67 (pH)] [Hardness] * 0.01			
Nitrate (as N)	mg/L	32.8	3	-	3.7	0.0374	0.0232					
Nitrite (as N)	mg/L	Varies with chloride. Table 27B, see note. Guideline = 0.06	Varies with chloride. Table 27B, see note. Guideline = 0.02	-	-	< 0.0010	< 0.0010		Varies with chloride. Refer to Table 27B in BC WQG for guideline values.	Varies with chloride. Refer to Table 27B in BC WQG for guideline values.		
Total Nitrogen	mg/L	-	-	-	-	0.106	0.089					
Total Phosphorous	mg/L	-	0.005 to 0.015	-	-	0.0679	0.0395			Guideline is for lakes, refer to BCWQ guideline for nutrients and algae for more information. Guideline does not apply to site.		
Sulfate (as SO4)	mg/L	-	Varies with hardness. See note. Guideline = 128	-	-	2.91	3.22			Guidelines for hardness ranges below: Hardness 0 - 30: 128 Hardness 31 - 75: 218 Hardness 76 - 180: 309 Hardness 181 - 250: 429		
Total Metals												
Aluminum (Al)-Total	mg/L	-	Varies with pH, DOC, hardness Guideline = 0.094 5-week field average = 0.220 (US), 0.262 (DS)	-	-	0.147	0.123			Guideline varies with pH, hardness and Dissolved Organic Carbon (DOC). Guideline is calculated with the following equation: Guideline = ([EXP(0.045 * LN(DOC)) + (2.255 * LN(hardness)) + (1.566 * pH) + (-0.284 * (LN(hardness)) * pH)]-9.896)/(1000). If hardness or DOC is below the hardness range, the minimum hardness or DOC will be applied in the calculation.		
Antimony (Sb)-Total	mg/L	0.25	0.074	-	-	< 0.00010	< 0.00010					
Arsenic (As)-Total	mg/L	-	0.005	-	0.0125	0.00028	0.00026					Interim guideline status
Barium (Ba)-Total	mg/L	-	1	-	-	0.00396	0.00357			Working guideline status		
Beryllium (Be)-Total	mg/L	-	0.00013	-	0.100	< 0.000100	< 0.000100			Working guideline status		Working guideline status
Bismuth (Bi)-Total	mg/L	-	-	-	-	< 0.000050	< 0.000050					
Boron (B)-Total	mg/L	-	1.2	-	1.2	< 0.010	< 0.010					
Cadmium (Cd)-Total	mg/L	-	-	-	0.00012	0.000278	0.000185					Working guideline status
Calcium (Ca)-Total	mg/L	-	-	-	-	2.23	4.55					
Chromium (Cr) – Total	mg/L	-	-	-	-	< 0.00010	0.000026					
Chromium (Cr3) (+3)-Total	mg/L	-	-	-	-	< 0.00030	< 0.00030					
Chromium (Cr6+)-Total	mg/L	-	0.0089	-	0.056	< 0.00030	< 0.00030			Working guideline status		Working guideline status
Chromium (Cr6+)-Total	mg/L	-	0.0025	-	0.0015	< 0.00050	< 0.00050			Working guideline status		Working guideline status
Cobalt (Co)-Total	mg/L	0.11	0.004	-	-	< 0.00010	< 0.00010					
Copper (Cu)-Total	mg/L	-	-	0.003	0.003 5-week field averages = 0.001396 (US), 0.001108 (DS)	0.00113	0.0008					
Iron (Fe)-Total	mg/L	1	-	-	-	0.07	0.047					
Lead (Pb)-Total	mg/L	-	-	0.14	0.002 5-week field averages = 0.000108(US), 0.000098 (DS)	0.000074	0.00006		Guideline varies with hardness, refer to BC Water Quality Guidelines for more information. Guideline is 0.003 where hardness ≤0mg/L. Guideline uses equation EXP(1.273*LN(hardness)-1.460) where hardness is 8-360 mg/L. Lowest value for guideline is 0.003 mg/L.	Guideline varies with hardness, refer to BC Water Quality Guidelines for more information. Guideline equation EXP(1.273*LN(hardness)-4.704) applies to samples with hardness 9-360 mg/L.		
Lithium (Li)-Total	mg/L	-	-	-	-	< 0.0010	0.0016					
Magnesium (Mg)-Total	mg/L	-	-	-	-	0.383	0.367					
Manganese (Mn)-Total	mg/L	Varies with hardness Guideline = 0.82	Varies with hardness Guideline = 0.77	-	-	0.0025	0.00258		Guideline varies with hardness. The guideline is calculated using the following equation: Guideline = (0.0044 * hardness + 0.605) Guideline applies to samples with hardness 25-259 mg/L. Lowest value for guideline is 0.77 mg/L. If hardness is below the hardness range, the minimum hardness will be applied in the calculation.	Guideline varies with hardness, refer to BC Water Quality Guidelines for more information. The guideline is calculated using the following equation: Guideline = (0.01102 * hardness + 0.134) Guideline applies to samples with hardness 37-430 mg/L. Lowest value for guideline is 0.81 mg/L. If hardness is below the hardness range, the minimum hardness will be applied in the calculation.		
Mercury (Hg)-Total	mg/L	-	Varies with methyl mercury Guideline = N/A	-	-	< 0.0000050	< 0.0000050			When Methyl is 0.5% of total Hg, guideline is equal to 0.02 mg/L Guideline = 0.12(MeHg/totalHg). When MeHg is 0.5% of total Hg, guideline is equal to 0.02 mg/L		
Molybdenum (Mo)-Total	mg/L	46	7.6	-	-	0.000386	0.00295					
Nickel (Ni)-Total	mg/L	-	-	-	0.0083	< 0.00050	< 0.00050			Working guideline status. Guideline varies with hardness. Refer to BC Water Quality Guidelines for more information. Hardness 0 ≤ 60: 0.025 Hardness > 60 ≤ 180: Guideline = EXP(0.76 * (LN(hardness)) + 1.662)/1000) Hardness ≥ 180: 0.15		Working guideline status
Potassium (K)-Total	mg/L	-	-	-	-	0.318	0.362					
Rubidium (Rb)-Total	mg/L	-	-	-	-	0.00033	0.0006					
Selenium (Se)-Total	mg/L	-	0.002	-	0.002	< 0.000050	< 0.000050			Guideline for freshwater aquatic life (water column). Alert concentration is 0.001 mg/L, with separate guidelines for sediment, invertebrate and fish tissue. Refer to BC Water Quality Guidelines for more information on guidelines and sampling guidance.		Guideline for marine aquatic life (water column). Alert concentration is 0.001 mg/L, with separate guidelines for sediment, invertebrate and fish tissue. Refer to BC Water Quality Guidelines for more information on guidelines and sampling guidance.
Silicon (Si)-Total	mg/L	-	-	-	-	3.19	3.27					
Silver (Ag)-Total	mg/L	Varies with hardness, see note Guideline = 0.0001	Varies with hardness, see note Guideline = 0.00025	0.003	0.0015	< 0.000010	< 0.000010		Varies with hardness Guideline ranges: Hardness ≤ 100: 0.0001 Hardness > 100: 0.003	Varies with hardness Guideline ranges: Hardness ≤ 100: 0.00005 Hardness > 100: 0.0015		Guideline applies to open coast and estuaries Guideline is applicable to the EQP site.
Sodium (Na)-Total	mg/L	-	-	-	-	1.28	1.79					
Strontium (Sr)-Total	mg/L	-	-	-	-	0.0101	0.0138					
Sulfur (S)-Total	mg/L	-	-	-	-	0.84	0.92					
Tellurium (Te)-Total	mg/L	-	-	-	-	< 0.00020	< 0.00020					
Thallium (Tl)-Total	mg/L	-	0.00003 5-week field average = +0.000010 (US), +0.000010 (DS)	-	-	< 0.000010	< 0.000010			30-day average, site-specific objective for the lower Columbia River, BC. Guideline is for reference only and does not apply to the EQP site.		
Thorium (Th)-Total	mg/L	-	-	-	-	< 0.00010	< 0.00010					
Tin (Sn)-Total	mg/L	-	-	-	-	< 0.00010	< 0.00010					
Titanium (Ti)-Total	mg/L	-	-	-	-	0.00298	0.00201					
Tungsten (W)-Total	mg/L	-	-	-	-	< 0.00010	< 0.00010					
Uranium (U)-Total	mg/L	0.0168	0.0075	-	-	0.000119	0.00009			Working guideline status		
Vanadium (V)-Total	mg/L	-	0.06	-	0.005	< 0.00050	< 0.00050					Working guideline status
Zinc (Zn)-Total	mg/L	-	-	0.055	0.010 5-week field average = 0.0037 (US), 0.0048 (DS)	< 0.0030	< 0.0030					
Zirconium (Zr)-Total	mg/L	-	-	-	-	< 0.00020	< 0.00020					
Dissolved Metals												
Aluminum (Al)-Dissolved	mg/L	-	-	-	-	0.0629	0.0749					
Antimony (Sb)-Dissolved	mg/L	-	-	-	-	< 0.00010	< 0.00010					
Arsenic (As)-Dissolved	mg/L	-	-	-	-	0.00021	0.00021					
Barium (Ba)-Dissolved	mg/L	-	-	-	-	0.0031	0.0030					
Beryllium (Be)-Dissolved	mg/L	-	-	-	-	< 0.000100	< 0.000100					
Bismuth (Bi)-Dissolved	mg/L	-	-	-	-	< 0.000050	< 0.000050					
Boron (B)-Dissolved	mg/L	-	-	-	-	< 0.010	< 0.010					
Cadmium (Cd)-Dissolved	mg/L	Varies with hardness, see note Guideline = 0.000040	Varies with hardness, see note Guideline = 0.000034	-	-	0.0000278	< 0.0000100		Guideline is hardness dependent. Guideline is applicable to water hardness between 7.0 and 453 mg/L. Guideline is calculated with the following formula: Guideline = (EXP(0.7852 * (LN(hardness)) - 3.49)) Lowest value for guideline is 0.000018 mg/L. If hardness is below the hardness range, the minimum hardness will be applied in the calculation.	Guideline is hardness dependent. Guideline is applicable to hardness between 3.4 and 285 mg/L. Guideline is calculated with the following formula: Guideline = (EXP(0.7852 * (LN(hardness)) - 3.49)) Lowest value for guideline is 0.000034. If hardness is below the hardness range, the minimum hardness will be applied in the calculation.		
Calcium (Ca)-Dissolved	mg/L	-	Categorical, see note	-	-	2.39	4.78			Guideline categorizes the sensitivity of a water body to acid inputs (i.e. buffering capacity). Standard is 4 mg/L dissolved Ca for the most sensitive waterbodies,5 - 8 mg/L for waterbodies with moderate sensitivity to acid inputs. Waterbodies with dissolved calcium > 8mg/L are considered to have low sensitivity to acid inputs.		
Cesium (Cs)-Dissolved	mg/L	-	-	-	-	< 0.000010	< 0.000010					
Chromium (Cr)-Dissolved	mg/L	-	-	-	-	< 0.00050	< 0.00050					
Cobalt (Co)-Dissolved	mg/L	-	-	-	-	< 0.00010	< 0.00010					
Copper (Cu)-Dissolved	mg/L	Guideline varies with other parameters, see note Guideline = 0.0017	Guideline varies with other parameters, see note Guideline = 0.0003 5-week field average = 0.00111 (US), 0.00081 (DS)	-	-	0.00106	0.00087		Guideline varies with other parameters and is calculated using BC BLM software. Simplified model: Temperature, pH, DOC and hardness Detailed model: Temperature, pH, DOC, humic acid content, total calcium, total magnesium, total sodium, total potassium, sulphate, chloride, and alkalinity Guideline calculated using values for parameters above taken at the specific site on each sampling date	Guideline varies with other parameters and is calculated using BC BLM software. Simplified model: Temperature, pH, DOC and hardness Detailed model: Temperature, pH, DOC, humic acid content, total calcium, total magnesium, total sodium, total potassium, sulphate, chloride, and alkalinity Guideline calculated using values for parameters above taken at the specific site on each sampling date		
Iron (Fe)-Dissolved	mg/L	0.35	-	-	-	0.021	0.012					
Lead (Pb)-Dissolved	mg/L	-	Guideline varies with DOC and hardness Guideline: 0.00295 5-week field average = 0.000058 (US), +0.000058 (DS)	-	-	0.000079	< 0.000050			Guideline varies with DOC and hardness. Refer to BC Water Quality Guidelines for more information. Guideline uses equation (EXP((0.5147*LN(DOC))+(0.2147*LN(Hardness))+0.4354))/(31000 where DOC range is 0.3-31.5 mg/L and hardness range is 4.7-511 mg/L		
Lithium (Li)-Dissolved	mg/L	-	-	-	-	< 0.0010	< 0.0010					
Magnesium (Mg)-Dissolved	mg/L	-	-	-	-	0.401	0.408					
Manganese (Mn)-Dissolved	mg/L	-	-	-	-	0.00082	0.00133					
Mercury (Hg)-Dissolved	mg/L	-	-	-	-	< 0.0000050	< 0.0000050					
Molybdenum (Mo)-Dissolved	mg/L	-	-	-	-	0.000416	0.00312					
Nickel (Ni)-Dissolved	mg/L	Guideline varies with pH, temperature, DOC, and hardness Guideline: 0.07761	Guideline varies with pH, temperature, DOC, and hardness Guideline: 0.031227 5-week field average = + 0.00056 (US), 0.00053 (DS)	-	-	< 0.00050	< 0.00050		Guideline varies with other parameters and is calculated using BC BLM software. Simplified model: Temperature, pH, DOC and hardness Detailed model: Temperature, pH, DOC, humic acid content, total calcium, total magnesium, total sodium, total potassium, sulphate, chloride, and alkalinity Guideline calculated using values for parameters above taken at the specific site on each sampling date	Guideline varies with other parameters and is calculated using BC BLM software. Simplified model: Temperature, pH, DOC and hardness Detailed model: Temperature, pH, DOC, humic acid content, total calcium, total magnesium, total sodium, total potassium, sulphate, chloride, and alkalinity Guideline calculated using values for parameters above taken at the specific site on each sampling date		
Phosphorus (P)-Dissolved	mg/L	-	-	-	-	0.07	< 0.050					
Rubidium (Rb)-Dissolved	mg/L	-	-	-	-	0.00032	0.00064					
Selenium (Se)-Dissolved	mg/L	-	-	-	-	< 0.00005	< 0.00005					
Silicon (Si)-Dissolved	mg/L	-	-	-	-	3.19	3.39					
Silver (Ag)-Dissolved	mg/L	-	-	-	-	< 0.000010	< 0.000010					
Sodium (Na)-Dissolved	mg/L	-	-	-	-	1.4	1.72					
Strontium (Sr)-Dissolved	mg/L	-	-	-	-	0.0104	0.0141					
Sulfur (S)-Dissolved	mg/L	-	-	-	-	0.84	0.86					
Tellurium (Te)-Dissolved	mg/L	-	-	-	-	< 0.00020	< 0.00020					
Thallium (Tl)-Dissolved	mg/L	-	-	-	-	< 0.000010	< 0.000010					
Thorium (Th)-Dissolved	mg/L	-	-	-	-	< 0.00010	< 0.00010					
Tin (Sn)-Dissolved	mg/L	-	-	-	-	< 0.00010	< 0.00010					
Titanium (Ti)-Dissolved	mg/L	-	-	-	-	< 0.00030	< 0.00030					
Tungsten (W)-Dissolved	mg/L	-	-	-	-	< 0.00010	0.00010					
Uranium (U)-Dissolved	mg/L	-	-	-	-	0.00017	0.00039					
Vanadium (V)-Dissolved	mg/L	-	-	-	-	< 0.00050	< 0.00050					
Zinc (Zn)-Dissolved	mg/L	Varies with DOC and hardness Guideline = 0.009	Varies with pH, DOC, hardness Guideline = 0.004230 5-week field average = 0.0024 (US), 0.0027 (DS)	-	-	0.0019	0.0016		Guideline varies with DOC and hardness. Guideline is calculated using the following formula: Guideline = ([EXP((0.833 * (LN(Hardness)) + (0.24 * (LN(DOC))) + 1.795)]*0.026)/31000) If hardness or DOC is below the hardness or DOC range, the minimum hardness or DOC will be applied in the calculation.	Guideline varies with pH, hardness and Dissolved Organic Carbon (DOC). Guideline is calculated using the following formula: Guideline = ([EXP((0.074 * (LN(Hardness)) - (0.870 * pH) + (0.394 * (LN(DOC))) + 2.901)]*0.026)/31000) Guideline only applies to water with pH between 6.5 and 8.13, DOC between 0.3 and 22.9 mg/L, ammd hardness between 23.4 and 369 mg/L. If hardness or DOC is below the hardness or DOC range, the minimum hardness or DOC will be applied in the calculation.		
Zirconium (Zr)-Dissolved	mg/L	-	-	-	-	< 0.00020	< 0.00020					
Applied Guideline:		**British Columbia Approved and Working Water Quality Guidelines (NOV 2023) for Freshwater Aquatic Life (FAL) & Marine Aquatic Life (MAL)** **Short-Term (ST) & Long-Term (LT)**										

[1]BC MOECCS. 2023. BC Water Quality Guidelines for the Protection of Aquatic Life, Wildlife & Agriculture. Accessed from www.env.gov.bc.ca/wat/wq/BCguidelines/approval_criteria.html

[2]BC MOECCS. 2021. BC Working Water Quality Guidelines for the Protection of Aquatic Life, Wildlife & Agriculture. Accessed from bc_env_working_water_quality_guidelines.pdf (gov.bc.ca)

[3]Note that long-term guidelines apply to averaged data to account for chronic impacts to aquatic life. Ideally, five samples collected at evenly spaced intervals over 30 days is considered to be the minimum number needed to calculate the long-term average of any parameter, though this may vary by parameter and site conditions. Long-term guidelines applied here are for reference only and may not indicate chronic impacts to aquatic life if exceedances occur in the short term.

Background temperature ranges: Dec-Feb: 0.3-8.0C Mar-Apr: 3.0-10.2C May-June: 6.8-15.1C Jul-present: 12.9-18.2C
Reference: AquaTROLL In-Situ Data Logger - Background water temperatures collected from Dec- present
For guidelines dependent on other parameters, when hardness, pH or DOC are below the range stated in the guideline, the lowest value in the range is used to calculate the guideline.

Parameters Used to Calculate Guidelines

Analyte	Units	Measurement method	Values	
			EAS US1 (Upstream)	EAS DS 1 (Downstream)
pH (field)	pH units	Field pH taken using handheld meters during sampling used in calculations	7.02	7.42
Temperature (field)	°C	Field temperature taken using handheld meters during sampling used in calculations	6.4	6.2
Turbidity (field)	NTU	Field turbidity taken using handheld meters during sampling used in calculations	2.40	1.84
Hardness (as CaCO3) (total)	mg/L	Laboratory tested total hardness taken at each respective sample site on the day of sampling used in guideline calculations	7.32	13
Dissolved Organic Carbon (DOC)	mg/L	Laboratory tested dissolved organic carbon tested at the lab used in guideline calculations	2.44	2.2
Total Alkalinity (CaCO3)	mg/L	Laboratory tested total alkalinity used in calculations	5.6	10.8
Chloride	mg/L	Laboratory tested chloride taken at each respective sample site on the day of sampling used in guideline calculations	0.7	2.08

Woodfibre Site Receiving Environment Lab Documentation

CERTIFICATE OF ANALYSIS

Work Order	: **VA25A5338**			
Client	: **Triton Environmental Consultants Ltd.**	Laboratory	:	ALS Environmental - Vancouver
Contact	:	Account Manager	:	
Address	:	Address	:	
Telephone	:	Telephone	:	
Project	:	Date Samples Received	:	11-Mar-2025 17:00
PO	:	Date Analysis Commenced	:	12-Mar-2025
C-O-C number	: ----	Issue Date	:	18-Mar-2025 16:21
Sampler	: AR			
Site	: Water Analysis			
Quote number	: VA25-TRIT100-001			
No. of samples received	: 2			
No. of samples analysed	: 2			

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

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

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

Signatories

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

Signatories	*Position*	*Laboratory Department*
		Metals, Burnaby, British Columbia
		Metals, Burnaby, British Columbia
		Inorganics, Burnaby, British Columbia
		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).

Unit	*Description*
-	no units
°C	degrees celsius
mg/L	milligrams per litre
pH units	pH units
µS/cm	microsiemens per centimetre

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

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	WING US 1	WLNG DS 1	----	----	----
					Client sampling date / time	11-Mar-2025 09:41	11-Mar-2025 10:29	----	----	----
						VA25A5338-001	VA25A5338-002	----	----	----
						Result	Result	----	----	----
Field Tests										
Conductivity, field	----	EF001/VA	0.10	µS/cm		55.000	45.000	----	----	----
pH, field	----	EF001/VA	0.10	pH units		7.02	7.42	----	----	----
Temperature, field	----	EF001/VA	0.10	°C		6.40	6.20	----	----	----
Physical Tests										
Hardness (as CaCO3), dissolved	----	EC100/VA	0.60	mg/L		7.62	13.6	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/VA	0.60	mg/L		7.32	13.0	----	----	----
Solids, total dissolved [TDS]	----	E162/VA	10	mg/L		25	33	----	----	----
Solids, total suspended [TSS]	----	E160/VA	3.0	mg/L		<3.0	<3.0	----	----	----
Alkalinity, total (as CaCO3)	----	E290/VA	2.0	mg/L		5.6	10.8	----	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L		<0.0050	0.0052	----	----	----
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		0.70	2.08	----	----	----
Fluoride	16984-48-8	E235.F/VA	0.020	mg/L		0.022	0.048	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/VA	0.0050	mg/L		0.0374	0.0232	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/VA	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Nitrogen, total	7727-37-9	E366/VA	0.030	mg/L		0.106	0.089	----	----	----
Phosphorus, total	7723-14-0	E372-U/VA	0.0020	mg/L		0.0679	0.0395	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/VA	0.30	mg/L		2.91	3.22	----	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/VA	0.50	mg/L		2.44	2.20	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: WING US 1	Client sample ID: WLNG DS 1	Client sample ID: ----	Client sample ID: ----	Client sample ID: ----
					Client sampling date / time: 11-Mar-2025 09:41	11-Mar-2025 10:29	----	----	----
					VA25A5338-001	VA25A5338-002	----	----	----
					Result	Result	----	----	----
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	0.147	0.123	----	----	----
Antimony, total	7440-36-0	E420/VA	0.00010	mg/L	<0.00010	<0.00010	----	----	----
Arsenic, total	7440-38-2	E420/VA	0.00010	mg/L	0.00028	0.00026	----	----	----
Barium, total	7440-39-3	E420/VA	0.00010	mg/L	0.00296	0.00337	----	----	----
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	0.0000085	0.0000078	----	----	----
Calcium, total	7440-70-2	E420/VA	0.050	mg/L	2.30	4.55	----	----	----
Cesium, total	7440-46-2	E420/VA	0.000010	mg/L	<0.000010	0.000014	----	----	----
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	0.00113	0.00080	----	----	----
Iron, total	7439-89-6	E420/VA	0.010	mg/L	0.070	0.047	----	----	----
Lead, total	7439-92-1	E420/VA	0.000050	mg/L	0.000074	0.000060	----	----	----
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	0.383	0.387	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	WING US 1	WLNG DS 1	----	----	----
					Client sampling date / time	11-Mar-2025 09:41	11-Mar-2025 10:29	----	----	----
						VA25A5338-001	VA25A5338-002	----	----	----
						Result	Result	----	----	----
Total Metals										
Manganese, total	7439-96-5	E420/VA	0.00010	mg/L		0.00250	0.00258	----	----	----
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		0.000386	0.00295	----	----	----
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		0.074	<0.050	----	----	----
Potassium, total	7440-09-7	E420/VA	0.050	mg/L		0.318	0.392	----	----	----
Rubidium, total	7440-17-7	E420/VA	0.00020	mg/L		0.00033	0.00060	----	----	----
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		3.19	3.27	----	----	----
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		1.28	1.79	----	----	----
Strontium, total	7440-24-6	E420/VA	0.00020	mg/L		0.0101	0.0138	----	----	----
Sulfur, total	7704-34-9	E420/VA	0.50	mg/L		0.84	0.92	----	----	----
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	----	----	----
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		0.00298	0.00201	----	----	----
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		0.000173	0.000300	----	----	----
Vanadium, total	7440-62-2	E420/VA	0.00050	mg/L		<0.00050	<0.00050	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	WING US 1	WLNG DS 1	----	----	----
					Client sampling date / time	11-Mar-2025 09:41	11-Mar-2025 10:29	----	----	----
						VA25A5338-001	VA25A5338-002	----	----	----
						Result	Result	----	----	----
Total Metals										
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		0.0929	0.0749	----	----	----
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		0.00020	0.00021	----	----	----
Barium, dissolved	7440-39-3	E421/VA	0.00010	mg/L		0.00251	0.00291	----	----	----
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		0.0000078	<0.0000050	----	----	----
Calcium, dissolved	7440-70-2	E421/VA	0.050	mg/L		2.39	4.78	----	----	----
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		0.00106	0.00067	----	----	----
Iron, dissolved	7439-89-6	E421/VA	0.010	mg/L		0.021	0.012	----	----	----
Lead, dissolved	7439-92-1	E421/VA	0.000050	mg/L		0.000079	<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		0.401	0.408	----	----	----
Manganese, dissolved	7439-96-5	E421/VA	0.00010	mg/L		0.00082	0.00133	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	WING US 1	WLNG DS 1	----	----	----
					Client sampling date / time	11-Mar-2025 09:41	11-Mar-2025 10:29	----	----	----
						VA25A5338-001	VA25A5338-002	----	----	----
						Result	Result	----	----	----
Dissolved Metals										
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		0.000416	0.00312	----	----	----
Nickel, dissolved	7440-02-0	E421/VA	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Phosphorus, dissolved	7723-14-0	E421/VA	0.050	mg/L		0.070	<0.050	----	----	----
Potassium, dissolved	7440-09-7	E421/VA	0.050	mg/L		0.319	0.387	----	----	----
Rubidium, dissolved	7440-17-7	E421/VA	0.00020	mg/L		0.00032	0.00064	----	----	----
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		3.18	3.39	----	----	----
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		1.40	1.72	----	----	----
Strontium, dissolved	7440-24-6	E421/VA	0.00020	mg/L		0.0104	0.0141	----	----	----
Sulfur, dissolved	7704-34-9	E421/VA	0.50	mg/L		0.84	0.88	----	----	----
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		0.00059	<0.00030	----	----	----
Tungsten, dissolved	7440-33-7	E421/VA	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Uranium, dissolved	7440-61-1	E421/VA	0.000010	mg/L		0.000170	0.000309	----	----	----
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		0.0019	0.0018	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

					Client sample ID	WING US 1	WLNG DS 1	----	----	----
					Client sampling date / time	11-Mar-2025 09:41	11-Mar-2025 10:29	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA25A5338-001	VA25A5338-002	----	----	----
						Result	Result	----	----	----
Dissolved Metals										
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/VA	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Chromium, trivalent [Cr III], total	16065-83-1	EC535/VA	0.00050	mg/L		<0.00050	<0.00050	----	----	----

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

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA25A5338**	Page	: 1 of 15
Client	: **Triton Environmental Consultants Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	:	Account Manager	:
Address	:	Address	:
Telephone	:	Telephone	:
Project	:	Date Samples Received	: 11-Mar-2025 17:00
PO	:	Issue Date	: 18-Mar-2025 16:21
C-O-C number	: ----		
Sampler	: AR		
Site	: Water Analysis		
Quote number	: VA25-TRIT100-001		
No. of samples received	: 2		
No. of samples analysed	: 2		

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

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

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

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No 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

- 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
Laboratory Control Sample (LCS) Recoveries								
Dissolved Metals	QC-1906106-002	----	Phosphorus, dissolved	7723-14-0	E421	121 % MES	80.0-120%	Recovery greater than upper 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 Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) WING US 1	E298	11-Mar-2025	12-Mar-2025	28 days	1 days	✓	14-Mar-2025	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) WLNG DS 1	E298	11-Mar-2025	12-Mar-2025	28 days	1 days	✓	14-Mar-2025	28 days	4 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE WING US 1	E235.Br-L	11-Mar-2025	13-Mar-2025	28 days	2 days	✓	13-Mar-2025	28 days	2 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE WLNG DS 1	E235.Br-L	11-Mar-2025	13-Mar-2025	28 days	2 days	✓	13-Mar-2025	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE WING US 1	E235.Cl	11-Mar-2025	13-Mar-2025	28 days	2 days	✓	13-Mar-2025	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE WLNG DS 1	E235.Cl	11-Mar-2025	13-Mar-2025	28 days	2 days	✓	13-Mar-2025	28 days	2 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE WING US 1	E235.F	11-Mar-2025	13-Mar-2025	28 days	2 days	✓	13-Mar-2025	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 Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Fluoride in Water by IC										
HDPE										
WLNG DS 1	E235.F	11-Mar-2025	13-Mar-2025	28 days	2 days	✓	13-Mar-2025	28 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
WING US 1	E235.NO3-L	11-Mar-2025	13-Mar-2025	3 days	2 days	✓	13-Mar-2025	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
WLNG DS 1	E235.NO3-L	11-Mar-2025	13-Mar-2025	3 days	2 days	✓	13-Mar-2025	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
WING US 1	E235.NO2-L	11-Mar-2025	13-Mar-2025	3 days	2 days	✓	13-Mar-2025	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
WLNG DS 1	E235.NO2-L	11-Mar-2025	13-Mar-2025	3 days	2 days	✓	13-Mar-2025	3 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
WING US 1	E235.SO4	11-Mar-2025	13-Mar-2025	28 days	2 days	✓	13-Mar-2025	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
WLNG DS 1	E235.SO4	11-Mar-2025	13-Mar-2025	28 days	2 days	✓	13-Mar-2025	28 days	2 days	✓
Anions and Nutrients : Total Nitrogen by Colourimetry										
Amber glass total (sulfuric acid)										
WING US 1	E366	11-Mar-2025	12-Mar-2025	28 days	1 days	✓	13-Mar-2025	28 days	2 days	✓
Anions and Nutrients : Total Nitrogen by Colourimetry										
Amber glass total (sulfuric acid)										
WLNG DS 1	E366	11-Mar-2025	12-Mar-2025	28 days	1 days	✓	13-Mar-2025	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 Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
WING US 1	E372-U	11-Mar-2025	12-Mar-2025	28 days	1 days	✓	15-Mar-2025	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
WLNG DS 1	E372-U	11-Mar-2025	12-Mar-2025	28 days	1 days	✓	15-Mar-2025	28 days	4 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
WING US 1	E509	11-Mar-2025	15-Mar-2025	28 days	4 days	✓	15-Mar-2025	28 days	4 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
WLNG DS 1	E509	11-Mar-2025	15-Mar-2025	28 days	4 days	✓	15-Mar-2025	28 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
WLNG DS 1	E421	11-Mar-2025	12-Mar-2025	180 days	1 days	✓	13-Mar-2025	180 days	2 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
WING US 1	E421	11-Mar-2025	12-Mar-2025	180 days	1 days	✓	13-Mar-2025	180 days	3 days	✓
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial total (hydrochloric acid)										
WING US 1	EF001	11-Mar-2025	----	----	----		12-Mar-2025	----	1 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial total (hydrochloric acid)										
WLNG DS 1	EF001	11-Mar-2025	----	----	----		12-Mar-2025	----	1 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass - dissolved (field filtered/sulfuric acid)										
WING US 1	E358-L	11-Mar-2025	12-Mar-2025	28 days	1 days	✓	13-Mar-2025	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 Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass - dissolved (field filtered/sulfuric acid)										
WLNG DS 1	E358-L	11-Mar-2025	12-Mar-2025	28 days	1 days	✓	13-Mar-2025	28 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE										
WING US 1	E290	11-Mar-2025	13-Mar-2025	14 days	2 days	✓	13-Mar-2025	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE										
WLNG DS 1	E290	11-Mar-2025	13-Mar-2025	14 days	2 days	✓	13-Mar-2025	14 days	2 days	✓
Physical Tests : TDS by Gravimetry										
HDPE										
WING US 1	E162	11-Mar-2025	----	----	----		17-Mar-2025	7 days	6 days	✓
Physical Tests : TDS by Gravimetry										
HDPE										
WLNG DS 1	E162	11-Mar-2025	----	----	----		17-Mar-2025	7 days	6 days	✓
Physical Tests : TSS by Gravimetry										
HDPE										
WING US 1	E160	11-Mar-2025	----	----	----		17-Mar-2025	7 days	6 days	✓
Physical Tests : TSS by Gravimetry										
HDPE										
WLNG DS 1	E160	11-Mar-2025	----	----	----		17-Mar-2025	7 days	6 days	✓
Speciated Metals : Total Hexavalent Chromium (Cr VI) by IC										
Opaque HDPE - total (sodium hydroxide)										
WING US 1	E532	11-Mar-2025	----	----	----		12-Mar-2025	28 days	2 days	✓
Speciated Metals : Total Hexavalent Chromium (Cr VI) by IC										
Opaque HDPE - total (sodium hydroxide)										
WLNG DS 1	E532	11-Mar-2025	----	----	----		12-Mar-2025	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*	
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) WING US 1	E508	11-Mar-2025	15-Mar-2025	28 days	4 days	✓	15-Mar-2025	28 days	4 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) WLNG DS 1	E508	11-Mar-2025	15-Mar-2025	28 days	4 days	✓	15-Mar-2025	28 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) WING US 1	E420	11-Mar-2025	13-Mar-2025	180 days	2 days	✓	14-Mar-2025	180 days	3 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) WLNG DS 1	E420	11-Mar-2025	13-Mar-2025	180 days	2 days	✓	14-Mar-2025	180 days	3 days	✓
Total Sulfides : Total Sulfide by Colourimetry (Automated Flow)										
HDPE total (zinc acetate+sodium hydroxide) WING US 1	E395	11-Mar-2025	----	----	----		12-Mar-2025	7 days	1 days	✓
Total Sulfides : Total Sulfide by Colourimetry (Automated Flow)										
HDPE total (zinc acetate+sodium hydroxide) WLNG DS 1	E395	11-Mar-2025	----	----	----		12-Mar-2025	7 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			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
TSS by Gravimetry	E160	1911962	1	19	5.2	5.0	✓
TDS by Gravimetry	E162	1911965	1	19	5.2	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	1908050	1	18	5.5	5.0	✓
Chloride in Water by IC	E235.Cl	1908049	1	18	5.5	5.0	✓
Fluoride in Water by IC	E235.F	1908048	1	18	5.5	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1908052	1	18	5.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1908051	1	18	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1908053	1	18	5.5	5.0	✓
Alkalinity Species by Titration	E290	1908046	1	18	5.5	5.0	✓
Ammonia by Fluorescence	E298	1906660	1	16	6.2	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1906657	1	20	5.0	5.0	✓
Total Nitrogen by Colourimetry	E366	1906661	1	3	33.3	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1906659	1	16	6.2	5.0	✓
Total Sulfide by Colourimetry (Automated Flow)	E395	1905941	1	7	14.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1906098	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1906106	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1910380	1	20	5.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1910418	1	20	5.0	5.0	✓
Total Hexavalent Chromium (Cr VI) by IC	E532	1906847	1	16	6.2	5.0	✓
Laboratory Control Samples (LCS)							
TSS by Gravimetry	E160	1911962	1	19	5.2	5.0	✓
TDS by Gravimetry	E162	1911965	1	19	5.2	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	1908050	1	18	5.5	5.0	✓
Chloride in Water by IC	E235.Cl	1908049	1	18	5.5	5.0	✓
Fluoride in Water by IC	E235.F	1908048	1	18	5.5	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1908052	1	18	5.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1908051	1	18	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1908053	1	18	5.5	5.0	✓
Alkalinity Species by Titration	E290	1908046	1	18	5.5	5.0	✓
Ammonia by Fluorescence	E298	1906660	1	16	6.2	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1906657	1	20	5.0	5.0	✓
Total Nitrogen by Colourimetry	E366	1906661	1	3	33.3	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1906659	1	16	6.2	5.0	✓
Total Sulfide by Colourimetry (Automated Flow)	E395	1905941	1	7	14.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1906098	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1906106	1	20	5.0	5.0	✓

Matrix: **Water**

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

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Total Mercury in Water by CVAAS	E508	1910380	1	20	5.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1910418	1	20	5.0	5.0	✓
Total Hexavalent Chromium (Cr VI) by IC	E532	1906847	1	16	6.2	5.0	✓
Method Blanks (MB)							
TSS by Gravimetry	E160	1911962	1	19	5.2	5.0	✓
TDS by Gravimetry	E162	1911965	1	19	5.2	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	1908050	1	18	5.5	5.0	✓
Chloride in Water by IC	E235.Cl	1908049	1	18	5.5	5.0	✓
Fluoride in Water by IC	E235.F	1908048	1	18	5.5	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1908052	1	18	5.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1908051	1	18	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1908053	1	18	5.5	5.0	✓
Alkalinity Species by Titration	E290	1908046	1	18	5.5	5.0	✓
Ammonia by Fluorescence	E298	1906660	1	16	6.2	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1906657	1	20	5.0	5.0	✓
Total Nitrogen by Colourimetry	E366	1906661	1	3	33.3	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1906659	1	16	6.2	5.0	✓
Total Sulfide by Colourimetry (Automated Flow)	E395	1905941	1	7	14.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1906098	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1906106	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1910380	1	20	5.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1910418	1	20	5.0	5.0	✓
Total Hexavalent Chromium (Cr VI) by IC	E532	1906847	1	16	6.2	5.0	✓
Matrix Spikes (MS)							
Bromide in Water by IC (Low Level)	E235.Br-L	1908050	1	18	5.5	5.0	✓
Chloride in Water by IC	E235.Cl	1908049	1	18	5.5	5.0	✓
Fluoride in Water by IC	E235.F	1908048	1	18	5.5	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1908052	1	18	5.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1908051	1	18	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1908053	1	18	5.5	5.0	✓
Ammonia by Fluorescence	E298	1906660	1	16	6.2	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1906657	1	20	5.0	5.0	✓
Total Nitrogen by Colourimetry	E366	1906661	1	3	33.3	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1906659	1	16	6.2	5.0	✓
Total Sulfide by Colourimetry (Automated Flow)	E395	1905941	1	7	14.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1906098	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1906106	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1910380	1	20	5.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1910418	1	20	5.0	5.0	✓

Matrix: **Water**

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

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Total Hexavalent Chromium (Cr VI) by IC	E532	1906847	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 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry	E162 ALS Environmental - Vancouver	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Bromide in Water by IC (Low Level)	E235.Br-L 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 CO2. 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 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 methlyene blue colourimetric method. Results expressed "as H2S" if reported represent the maximum possible H2S concentration based on the total sulfide concentration in the sample. The H2S calculation converts Total Sulphide as (S2-) and reports it as Total Sulphide as (H2S)
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.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Vancouver	Water	APHA 2340B	"Hardness (as CaCO3), dissolved" is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 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 CaCO3), from total Ca/Mg" is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 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.
Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Vancouver	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 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.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
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.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **VA25A5338**	Page	: 1 of 17
Client	: [redacted]	Laboratory	: ALS Environmental - Vancouver
Contact	:	Account Manager	:
Address	:	Address	:
Telephone	:	Telephone	:
Project	:	Date Samples Received	: 11-Mar-2025 17:00
PO	:	Date Analysis Commenced	: 12-Mar-2025
C-O-C number	: ----	Issue Date	: 18-Mar-2025 16:21
Sampler	: AR		
Site	: Water Analysis		
Quote number	: VA25-TRIT100-001		
No. of samples received	: 2		
No. of samples analysed	: 2		

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

This Quality Control Report contains the following information:

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

Signatories

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

Signatories	*Position*	*Laboratory Department*
[redacted]		Vancouver Metals, Burnaby, British Columbia
		Vancouver Metals, Burnaby, British Columbia
		Vancouver Inorganics, Burnaby, British Columbia
		Vancouver Metals, Burnaby, British Columbia
		Vancouver Administration, 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: 1908046)											
VA25A5268-003	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	105	105	0.190%	20%	----
Physical Tests (QC Lot: 1911962)											
VA25A5268-001	Anonymous	Solids, total suspended [TSS]	----	E160	3.0	mg/L	6.2	5.6	0.6	Diff <2x LOR	----
Physical Tests (QC Lot: 1911965)											
VA25A5268-001	Anonymous	Solids, total dissolved [TDS]	----	E162	10	mg/L	99	100	2	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1906659)											
VA25A5169-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	<0.0020	<0.0020	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1906660)											
VA25A5169-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.947	0.962	1.64%	20%	----
Anions and Nutrients (QC Lot: 1906661)											
VA25A5337-001	Anonymous	Nitrogen, total	7727-37-9	E366	0.030	mg/L	0.204	0.204	0.0006	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1908048)											
VA25A5268-001	Anonymous	Fluoride	16984-48-8	E235.F	0.020	mg/L	0.065	0.062	0.003	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1908049)											
VA25A5268-001	Anonymous	Chloride	16887-00-6	E235.Cl	0.50	mg/L	0.52	0.50	0.01	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1908050)											
VA25A5268-001	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: 1908051)											
VA25A5268-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	0.0495	0.0491	0.0004	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1908052)											
VA25A5268-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1908053)											
VA25A5268-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	4.60	4.59	0.195%	20%	----
Organic / Inorganic Carbon (QC Lot: 1906657)											
VA25A5169-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	0.83	0.81	0.01	Diff <2x LOR	----
Total Sulfides (QC Lot: 1905941)											
VA25A5230-001	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: 1906098)											
FJ2500739-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.193	0.196	1.58%	20%	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00089	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: 1906098) - continued											
FJ2500739-001	Anonymous	Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00082	0.00083	0.00002	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0946	0.0928	1.90%	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	0.111	0.108	2.51%	20%	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.000202	0.000191	5.51%	20%	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	51.2	50.3	1.79%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000020	0.000020	0.0000005	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	0.00056	0.00057	0.000008	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00706	0.00716	1.37%	20%	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00171	0.00170	0.00002	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.154	0.160	3.49%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000086	0.000084	0.000002	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0484	0.0469	3.10%	20%	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	18.2	18.5	1.16%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.224	0.226	0.620%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.00516	0.00524	1.48%	20%	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.0231	0.0233	1.09%	20%	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	2.75	2.76	0.458%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00226	0.00222	1.96%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000712	0.000679	4.87%	20%	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	2.54	2.51	1.39%	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	147	147	0.336%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.259	0.268	3.49%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	106	107	0.637%	20%	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	0.000011	0.000011	0.0000001	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	0.00192	0.00196	0.00004	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	0.00039	0.00038	0.00001	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.00137	0.00133	3.21%	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: 1906098) - continued											
FJ2500739-001	Anonymous	Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00122	0.00117	0.00004	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.0288	0.0290	0.0003	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: 1910380)											
VA25A5309-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1906106)											
VA25A5164-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00031	0.00031	0.00000006	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00158	0.00149	6.19%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0781	0.0823	5.32%	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	0.0000592	0.0000582	1.66%	20%	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	117	121	3.46%	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	1.43	1.39	2.67%	20%	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00124	0.00119	0.00005	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.184	0.181	1.95%	20%	----
		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	0.0267	0.0276	3.50%	20%	----
		Magnesium, dissolved	7439-95-4	E421	0.100	mg/L	59.9	60.0	0.111%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.125	0.127	1.44%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.00118	0.00121	2.07%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.834	0.838	0.537%	20%	----
		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	3.54	3.63	2.35%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00221	0.00234	5.67%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.0212	0.0215	1.36%	20%	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	5.70	5.78	1.39%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	0.0434	0.0428	1.46%	20%	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	41.1	41.4	0.701%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.622	0.642	3.11%	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: 1906106) - continued											
VA25A5164-001	Anonymous	Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	94.4	93.9	0.517%	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	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.0118	0.0120	1.02%	20%	----
		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	0.0014	0.0013	0.00008	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: 1910418)											
VA25A5330-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	0.0000050	0.0000064	0.0000014	Diff <2x LOR	----
Speciated Metals (QC Lot: 1906847)											
VA25A5336-001	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: 1908046)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1911962)						
Solids, total suspended [TSS]	----	E160	3	mg/L	<3.0	----
Physical Tests (QCLot: 1911965)						
Solids, total dissolved [TDS]	----	E162	10	mg/L	<10	----
Anions and Nutrients (QCLot: 1906659)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1906660)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1906661)						
Nitrogen, total	7727-37-9	E366	0.03	mg/L	<0.030	----
Anions and Nutrients (QCLot: 1908048)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 1908049)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 1908050)						
Bromide	24959-67-9	E235.Br-L	0.05	mg/L	<0.050	----
Anions and Nutrients (QCLot: 1908051)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1908052)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1908053)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Organic / Inorganic Carbon (QCLot: 1906657)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Sulfides (QCLot: 1905941)						
Sulfide, total (as S)	18496-25-8	E395	0.0015	mg/L	<0.0015	----
Total Metals (QCLot: 1906098)						
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: 1906098) - 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: 1910380)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1906106)						
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: 1906106) - 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: 1910418)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Speciated Metals (QCLot: 1906847)						
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: 1908046)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	500 mg/L	104	85.0	115	----
Physical Tests (QCLot: 1911962)									
Solids, total suspended [TSS]	----	E160	3	mg/L	150 mg/L	96.3	85.0	115	----
Physical Tests (QCLot: 1911965)									
Solids, total dissolved [TDS]	----	E162	10	mg/L	1000 mg/L	98.5	85.0	115	----
Anions and Nutrients (QCLot: 1906659)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.05 mg/L	99.3	80.0	120	----
Anions and Nutrients (QCLot: 1906660)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	104	85.0	115	----
Anions and Nutrients (QCLot: 1906661)									
Nitrogen, total	7727-37-9	E366	0.03	mg/L	0.5 mg/L	96.9	75.0	125	----
Anions and Nutrients (QCLot: 1908048)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1908049)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	103	90.0	110	----
Anions and Nutrients (QCLot: 1908050)									
Bromide	24959-67-9	E235.Br-L	0.05	mg/L	0.5 mg/L	103	85.0	115	----
Anions and Nutrients (QCLot: 1908051)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	103	90.0	110	----
Anions and Nutrients (QCLot: 1908052)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	98.2	90.0	110	----
Anions and Nutrients (QCLot: 1908053)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	105	90.0	110	----
Organic / Inorganic Carbon (QCLot: 1906657)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	102	80.0	120	----
Total Sulfides (QCLot: 1905941)									
Sulfide, total (as S)	18496-25-8	E395	0.0015	mg/L	0.08 mg/L	90.3	80.0	120	----
Total Metals (QCLot: 1906098)									

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: 1906098) - continued									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	95.1	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	95.9	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	103	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	96.8	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	106	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	92.4	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	96.4	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	100.0	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	101	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	101	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	99.6	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	100	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	93.5	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	99.3	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	99.3	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	101	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	92.0	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	108	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	104	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	96.8	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	99.8	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	104	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	99.0	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	96.2	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	100	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	106	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1906098) - 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	97.0	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	93.3	80.0	120	----
Total Metals (QCLot: 1910380)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	99.4	80.0	120	----
Dissolved Metals (QCLot: 1906106)									
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	102	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	101	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	97.5	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	103	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	94.4	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	95.4	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	96.7	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	100	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	100	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	102	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	102	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	103	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	102	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	101	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	# 121	80.0	120	MES
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	100	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	99.1	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	101	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	94.8	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	109	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	102	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	101	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: 1906106) - 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	98.9	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	99.8	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	96.1	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	106	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	104	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	96.1	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	95.5	80.0	120	----
Speciated Metals (QCLot: 1906847)									
Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.0005	mg/L	0.25 mg/L	99.7	80.0	120	----

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: 1906659)										
VA25A5169-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0491 mg/L	0.05 mg/L	98.2	70.0	130	----
Anions and Nutrients (QCLot: 1906660)										
VA25A5169-002	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.103 mg/L	0.1 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 1906661)										
VA25A5338-001	WING US 1	Nitrogen, total	7727-37-9	E366	0.407 mg/L	0.4 mg/L	102	70.0	130	----
Anions and Nutrients (QCLot: 1908048)										
VA25A5268-002	Anonymous	Fluoride	16984-48-8	E235.F	1.05 mg/L	1 mg/L	105	75.0	125	----
Anions and Nutrients (QCLot: 1908049)										
VA25A5268-002	Anonymous	Chloride	16887-00-6	E235.Cl	108 mg/L	100 mg/L	108	75.0	125	----
Anions and Nutrients (QCLot: 1908050)										
VA25A5268-002	Anonymous	Bromide	24959-67-9	E235.Br-L	0.542 mg/L	0.5 mg/L	108	75.0	125	----
Anions and Nutrients (QCLot: 1908051)										
VA25A5268-002	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.68 mg/L	2.5 mg/L	107	75.0	125	----
Anions and Nutrients (QCLot: 1908052)										
VA25A5268-002	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.498 mg/L	0.5 mg/L	99.7	75.0	125	----
Anions and Nutrients (QCLot: 1908053)										
VA25A5268-002	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	109 mg/L	100 mg/L	109	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1906657)										
VA25A5169-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	5.11 mg/L	5 mg/L	102	70.0	130	----
Total Sulfides (QCLot: 1905941)										
VA25A5231-001	Anonymous	Sulfide, total (as S)	18496-25-8	E395	0.171 mg/L	0.2 mg/L	85.4	75.0	125	----
Total Metals (QCLot: 1906098)										
FJ2500739-002	Anonymous	Aluminum, total	7429-90-5	E420	0.182 mg/L	0.2 mg/L	90.8	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0186 mg/L	0.02 mg/L	92.8	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	0.0380 mg/L	0.04 mg/L	95.0	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0101 mg/L	0.01 mg/L	101	70.0	130	----
		Boron, total	7440-42-8	E420	0.090 mg/L	0.1 mg/L	90.5	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00400 mg/L	0.004 mg/L	100	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.00969 mg/L	0.01 mg/L	96.9	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0376 mg/L	0.04 mg/L	94.1	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
Total Metals (QCLot: 1906098) - continued										
FJ2500739-002	Anonymous	Cobalt, total	7440-48-4	E420	0.0190 mg/L	0.02 mg/L	94.8	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	1.88 mg/L	2 mg/L	94.2	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	0.0928 mg/L	0.1 mg/L	92.8	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	0.0185 mg/L	0.02 mg/L	92.6	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0369 mg/L	0.04 mg/L	92.2	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	3.73 mg/L	4 mg/L	93.2	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0196 mg/L	0.02 mg/L	98.0	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0417 mg/L	0.04 mg/L	104	70.0	130	----
		Silicon, total	7440-21-3	E420	9.58 mg/L	10 mg/L	95.8	70.0	130	----
		Silver, total	7440-22-4	E420	0.00367 mg/L	0.004 mg/L	91.8	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	0.0386 mg/L	0.04 mg/L	96.6	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00370 mg/L	0.004 mg/L	92.5	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0202 mg/L	0.02 mg/L	101	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	96.8	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0191 mg/L	0.02 mg/L	95.4	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00396 mg/L	0.004 mg/L	99.0	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.0990 mg/L	0.1 mg/L	99.0	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	0.0381 mg/L	0.04 mg/L	95.2	70.0	130	----
Total Metals (QCLot: 1910380)										
VA25A5309-002	Anonymous	Mercury, total	7439-97-6	E508	0.0000851 mg/L	0 mg/L	85.1	70.0	130	----
Dissolved Metals (QCLot: 1906106)										
VA25A5270-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.212 mg/L	0.2 mg/L	106	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	0.0219 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	0.0361 mg/L	0.04 mg/L	90.3	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00896 mg/L	0.01 mg/L	89.6	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.082 mg/L	0.1 mg/L	82.5	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00355 mg/L	0.004 mg/L	88.7	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.00997 mg/L	0.01 mg/L	99.7	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0406 mg/L	0.04 mg/L	101	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0188 mg/L	0.02 mg/L	94.1	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: 1906106) - continued										
VA25A5270-001	Anonymous	Copper, dissolved	7440-50-8	E421	0.0184 mg/L	0.02 mg/L	91.9	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.99 mg/L	2 mg/L	99.5	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0184 mg/L	0.02 mg/L	91.8	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0923 mg/L	0.1 mg/L	92.3	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	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0368 mg/L	0.04 mg/L	92.1	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	11.7 mg/L	10 mg/L	117	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	ND mg/L	----	ND	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0199 mg/L	0.02 mg/L	99.6	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0431 mg/L	0.04 mg/L	108	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.50 mg/L	10 mg/L	95.0	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00376 mg/L	0.004 mg/L	94.1	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	0.0423 mg/L	0.04 mg/L	106	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00346 mg/L	0.004 mg/L	86.6	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	0.0184 mg/L	0.02 mg/L	91.8	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0417 mg/L	0.04 mg/L	104	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	ND mg/L	----	ND	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.104 mg/L	0.1 mg/L	104	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.396 mg/L	0.4 mg/L	99.0	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0399 mg/L	0.04 mg/L	99.6	70.0	130	----
Dissolved Metals (QCLot: 1910418)										
VA25A5330-002	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000936 mg/L	0 mg/L	93.6	70.0	130	----
Speciated Metals (QCLot: 1906847)										
VA25A5337-001	Anonymous	Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.258 mg/L	0.25 mg/L	103	70.0	130	----

Chain of Custody (COC) / Analytical Request Form

ALS ENVIRONMENTAL

Canada Toll Free: 1 800 668 9878

www.alsglobal.com

COC Number: 17 -

Affix ALS barcode label here (lab use only)

Page 1 of 1

Report To	Contact and company name below will appear on the final report
Company:	
Contact:	
Phone:	
Street:	
City/Province:	
Postal Code:	

Report Format / Distribution	
Select Report Format:	☑ EXCEL ☐ EDD (DIGITAL)
Quality Control (QC) Report with Report	☑ YES ☐ NO
☑ Compare Results to Criteria on Report - provide details below if box checked	
Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	
Email 2	
Email 3	

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)			
Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply			
PRIORITY (Business Days)	4 day [P4-20%] ☐	EMERGENCY	1 Business day [E1 - 100%] ☐
	3 day [P3-25%] ☐		Same Day, Weekend or Statutory holiday [E2 - 200% (Laboratory opening fees may apply)] ☐
	2 day [P2-50%] ☐		
Date and Time Required for all E&P TATs:			
For tests that can not be performed according to the service level selected, you will be contacted.			

Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	
Contact:	
Select Invoice	
Email 1 or Fax	
Email 2	

Project Information	
ALS Account # / Quote #:	VA25-TRIT100-001
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): A5338

ALS Contact:

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	Total metals + mercury (F)	Dissolved metals + mercury (F/P)	Total hexavalent chromium (P)	Total trivalent chromium (P)	TSS	TDS	Nutrients (ammonia, ammonium, total nitrogen, total phosphorus) (P)	Total sulfide (low) (as H2S), Unionized Sulfide (low) (P)	Anions scan (Br, Cl, F, NO2, NO3, SO4)	General parameters (alkalinity)	DOC (F/P)	SAMPLES ON HOLD	Sample is hazardous (please provide further details)	NUMBER OF CONTAINERS
	WLNG US 1	11-Mar-25	9:41	Water	R	R	R	R	R	R	R	R	R	R	R		N	9
	pH: 7.02 cond: 55 temp: 6.4		↓															
	WLNG DS 1		10:29	Water	R	R	R	R	R	R	R	R	R	R	R		N	9
	pH: 7.42 cond: 45 temp: 6.2	↓																

Environmental Division Vancouver
Work Order Reference
VA25A5338

Telephone : +1 604 253 4188

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on repo (electronic COC
Are samples taken from a Regulated DW System? ☐ ☑ NO	
Are samples for human consumption/ use? ☐ ☑ NO	Triton project # 11964

SAMPLE CONDITION AS RECEIVED (lab use only)

n	☐	SIF Observations	Yes ☐	No	☐
acks ☑	Ice Cubes ☐	Custody seal intact	Yes ☐	No	☐
ng Initiated ☐					

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				5	7	C	

SHIPMENT RELEASE (client use)		INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)	
Released by:	Time: 17:00	Received by:	Date:	Time:	Received by:	Time: 1700

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

SEPT 2017 FRONT

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.

Woodfibre Site Receiving Environment Field Notes and Logs

FortisBC Eagle Mountain-Woodfibre Gas Pipeline

Water Discharge Authorization Water Quality Monitoring

2025-3-11-Rysdale-EEF49

Project Component:	Tunnel	**Site Name:**	Receiving Environment - Upstream of Discharge
Inspection Date:	03/11/2025	**Location:**	WLNG
Triton QP:	Aaron Rysdale	**Latitude/Longitude:**	49.669455 -123.25087
Temperature(c):	Low 3 High 4	**Permit:**	PE 110136
Weather Conditions:	Light Rain	**Ground Conditions:**	Wet

Observations

Time: 09:41:03 **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:**	
Dissolved Metals + Mercury	Yes	**Total Sulfide, Unionized Sulfide**	Yes		
TSS	Yes	**Anions**	Yes		
TDS	Yes	**Total Trivalent Chromium**	Yes	**QA Samples:**	Yes
Nutrients	Yes	**VOC/VPH**	No		
DOC	Yes	**EPH, PAH, LEPH/HEPH**	No		
		Trout LC50	No		

Logger Maintenance

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

Describe Logger Maintenance

Photos

Photo: 1

Location: WLNG US

Description: Looking upstream

Photo: 2

Location: WLNG US

Description: Sampling and sonde location

Photos

Photo: 3

Location: WLNG US

Description: Looking downstream

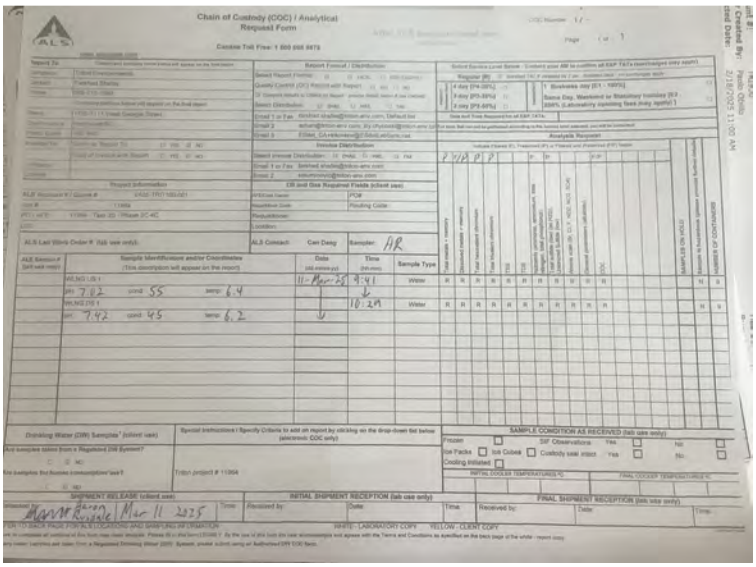


Photo: 4

Location: Lab COC

Description: Sample COC

Sign Off

Report Prepared By:	Aaron Rysdale	**Report Reviewed:**	Yes
Report Reviewer:		**Professional(s) of Record:**	
Name:			
Designation:			
Designation Number:			

FortisBC Eagle Mountain-Woodfibre Gas Pipeline

Water Discharge Authorization Water Quality Monitoring

2025-3-11-Rysdale-6FB63

Project Component:	Tunnel	**Site Name:**	Receiving Environment - Downstream of Discharge
Inspection Date:	03/11/2025	**Location:**	WLNG
Triton QP:	Aaron Rysdale	**Latitude/Longitude:**	49.669091 -123.248082
Temperature(c):	Low 3 High 4	**Permit:**	PE 110136
Weather Conditions:	Light Rain	**Ground Conditions:**	Wet

Observations

Time: 10:29:32 **Flow Volume (visual):** high

Notes: Taken while EOP system was discharging upstream

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		
TSS	Yes	**Anions**	Yes		
TDS	Yes	**Total Trivalent Chromium**	Yes	**QA Samples:**	Yes
Nutrients	Yes	**VOC/VPH**	No		
DOC	Yes	**EPH, PAH, LEPH/HEPH**	No		
		Trout LC50	No		

Logger Maintenance

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

Describe Logger Maintenance

Manual data download and reset of Vulink transmitting. Attempted to reset around 10:40 but vu link not responding. Returned at 13:35 and after flipping sonde upside down the vu link began to respond and began transmitting around 2pm.

Photos

Photo: 1

Location: WLNG DS

Description: Looking upstream

Photo: 2

Location: WLNG DS

Description: Sampling and sonde location

Photos

Photo: 3

Location: WLNG DS

Description: Looking downstream

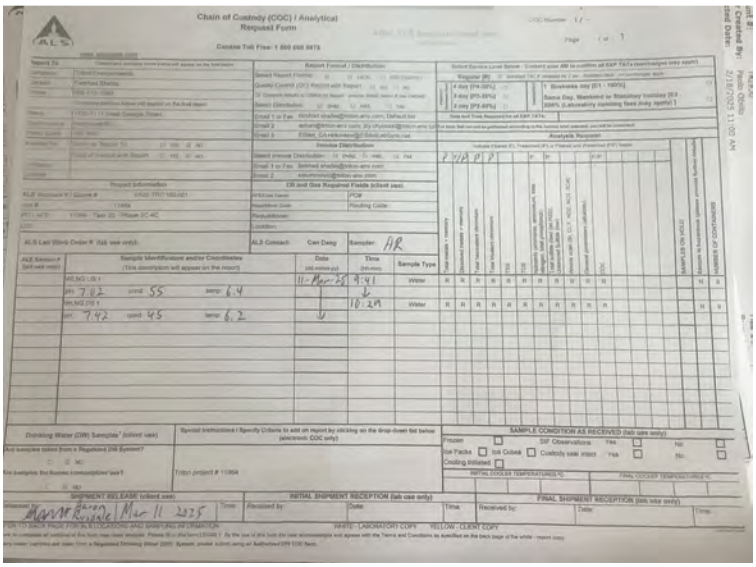


Photo: 4

Location: Lab COC

Description: Sample COC

Photos

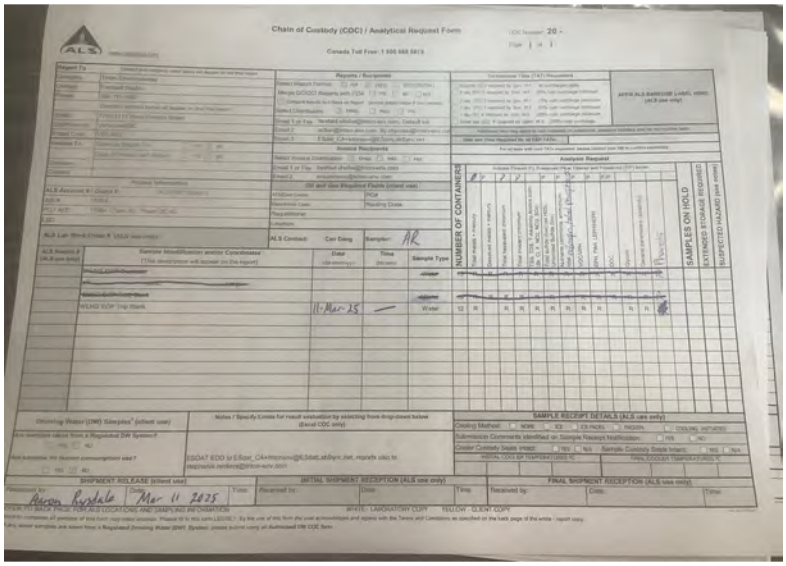


Photo: 5

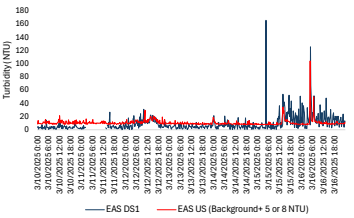
Location: Lab COC

Description: Travel Blank COC

Sign Off

Report Prepared By:	Aaron Rysdale	**Report Reviewed:**	Yes
Report Reviewer:		**Professional(s) of Record:**	
Name:			
Designation:			
Designation Number:			

Woodfibre Plant site East Creek (WC 309-R2)	EAS DS1							EAS US1 (Background)							
Date	Temperature (c)	Specific Conductivity (µS/cm)	Salinity PSU	pH	Dissolved Oxygen (mg/L)	Turbidity (NTU)		Date	Temperature (c)	Specific Conductivity (µS/cm)	Salinity PSU	pH	Dissolved Oxygen (mg/L)	Turbidity (NTU)	EAS US (Background+ 5 or 8 NTU)
3/10/2025 0:00	6.6	37.4	0.0	7.0	11.3	3.9		3/10/2025 0:00	6.0	10.9	0.0	7.1	11.3	0.4	8.4
3/10/2025 0:15	6.6	38.6	0.0	7.0	11.3	4.7		3/10/2025 0:15	6.0	13.7	0.0	7.1	11.3	5.7	13.7
3/10/2025 0:30	6.1	20.9	0.0	7.0	11.4	0.7		3/10/2025 0:30	6.0	14.1	0.0	7.1	11.3	1.1	9.1
3/10/2025 0:45	6.5	36.7	0.0	6.8	11.4	3.1		3/10/2025 0:45	6.0	13.7	0.0	7.1	11.3	0.9	8.9
3/10/2025 1:00	6.4	32.1	0.0	6.9	11.4	2.9		3/10/2025 1:00	6.0	13.7	0.0	7.1	11.3	1.7	9.7
3/10/2025 1:15	6.5	37.8	0.0	6.9	11.3	3.1		3/10/2025 1:15	5.9	13.4	0.0	7.1	11.3	1.5	9.5
3/10/2025 1:30	6.0	21.2	0.0	6.8	11.5	3.2		3/10/2025 1:30	5.9	12.1	0.0	7.0	11.3	1.8	9.8
3/10/2025 1:45	6.5	39.6	0.0	6.9	11.3	4.2		3/10/2025 1:45	5.9	13.7	0.0	7.1	11.3	0.5	8.5
3/10/2025 2:00	6.3	35.1	0.0	7.0	11.4	1.6		3/10/2025 2:00	5.9	13.4	0.0	7.0	11.3	0.4	8.4
3/10/2025 2:15	6.5	40.3	0.0	7.0	11.4	7.7		3/10/2025 2:15	5.9	13.5	0.0	7.1	11.3	1.0	9.0
3/10/2025 2:30	6.2	29.4	0.0	7.0	11.4	4.3		3/10/2025 2:30	5.8	13.4	0.0	7.1	11.3	1.5	9.5
3/10/2025 2:45	5.8	19.0	0.0	6.8	11.6	0.6		3/10/2025 2:45	5.8	12.0	0.0	7.0	11.4	1.1	9.1
3/10/2025 3:00	6.3	38.3	0.0	6.8	11.4	3.4		3/10/2025 3:00	5.8	13.4	0.0	7.1	11.4	4.1	12.1
3/10/2025 3:15	6.4	39.2	0.0	6.9	11.4	2.8		3/10/2025 3:15	5.8	13.3	0.0	7.1	11.4	2.5	10.5
3/10/2025 3:30	6.4	40.4	0.0	7.0	11.4	2.4		3/10/2025 3:30	5.8	13.2	0.0	7.1	11.4	2.5	10.5
3/10/2025 3:45	6.4	40.1	0.0	7.0	11.4	5.5		3/10/2025 3:45	5.7	12.1	0.0	7.0	11.4	1.8	9.8
3/10/2025 4:00	5.8	20.9	0.0	6.9	11.6	0.8		3/10/2025 4:00	5.7	13.2	0.0	7.0	11.4	5.9	13.9
3/10/2025 4:15	5.7	20.9	0.0	6.8	11.6	0.6		3/10/2025 4:15	5.7	13.2	0.0	7.0	11.4	7.3	15.3
3/10/2025 4:30	6.3	42.0	0.0	6.8	11.4	1.6		3/10/2025 4:30	5.7	13.1	0.0	7.1	11.4	0.7	8.7
3/10/2025 4:45	6.0	34.0	0.0	6.8	11.5	14.5		3/10/2025 4:45	5.7	13.2	0.0	7.1	11.4	1.6	9.6
3/10/2025 5:00	6.2	38.6	0.0	6.9	11.4	4.3		3/10/2025 5:00	5.6	13.0	0.0	7.1	11.4	4.7	12.7
3/10/2025 5:15	6.2	37.6	0.0	6.9	11.5	3.0		3/10/2025 5:15	5.7	13.1	0.0	7.0	11.4	3.7	11.7
3/10/2025 5:30	6.2	37.1	0.0	7.0	11.4	3.6		3/10/2025 5:30	5.6	12.8	0.0	7.0	11.4	4.6	12.6
3/10/2025 5:45	6.2	37.2	0.0	6.9	11.4	3.5		3/10/2025 5:45	5.6	11.6	0.0	7.0	11.4	1.2	9.2
3/10/2025 6:00	6.1	35.2	0.0	6.9	11.5	0.2		3/10/2025 6:00	5.6	12.8	0.0	7.0	11.4	2.7	10.7
3/10/2025 6:15	6.1	37.6	0.0	6.9	11.5	1.2		3/10/2025 6:15	5.6	12.9	0.0	7.0	11.4	8.4	13.4
3/10/2025 6:30	6.1	36.6	0.0	6.9	11.5	1.6		3/10/2025 6:30	5.6	12.6	0.0	7.0	11.4	0.5	8.5
3/10/2025 6:45	6.1	36.8	0.0	6.9	11.5	4.9		3/10/2025 6:45	5.6	11.5	0.0	7.1	11.4	1.2	9.2
3/10/2025 7:00	6.0	34.7	0.0	6.9	11.5	1.9		3/10/2025 7:00	5.6	12.8	0.0	7.0	11.5	2.1	10.1
3/10/2025 7:15	6.1	35.5	0.0	7.0	11.5	2.3		3/10/2025 7:15	5.6	11.6	0.0	7.0	11.4	1.7	9.7
3/10/2025 7:30	6.0	34.5	0.0	7.0	11.5	4.8		3/10/2025 7:30	5.5	12.7	0.0	7.0	11.5	1.2	9.2
3/10/2025 7:45	5.6	21.7	0.0	7.0	11.6	2.9		3/10/2025 7:45	5.5	12.8	0.0	7.0	11.5	2.2	10.2
3/10/2025 8:00	5.5	20.1	0.0	6.9	11.6	2.3		3/10/2025 8:00	5.6	12.6	0.0	7.0	11.5	0.2	8.2
3/10/2025 8:15	6.2	39.3	0.0	6.8	11.4	4.1		3/10/2025 8:15	5.6	12.8	0.0	7.1	11.4	0.5	8.5
3/10/2025 8:30	6.2	38.1	0.0	6.8	11.4	5.4		3/10/2025 8:30	5.6	12.7	0.0	7.0	11.5	0.1	8.1
3/10/2025 8:45	6.2	37.0	0.0	6.9	11.4	0.7		3/10/2025 8:45	5.6	11.3	0.0	7.0	11.4	1.9	9.9
3/10/2025 9:00	5.9	26.6	0.0	6.9	11.5	4.4		3/10/2025 9:00	5.6	12.6	0.0	7.0	11.4	0.7	8.7
3/10/2025 9:15	6.2	38.5	0.0	6.8	11.4	4.8		3/10/2025 9:15	5.7	12.6	0.0	7.1	11.4	0.8	8.8
3/10/2025 9:30	6.2	37.9	0.0	6.8	11.4	2.0		3/10/2025 9:30	5.7	12.5	0.0	7.0	11.4	0.2	8.2
3/10/2025 9:45	6.2	35.9	0.0	6.9	11.4	1.4		3/10/2025 9:45	5.8	12.6	0.0	7.0	11.4	1.6	9.6
3/10/2025 10:00	6.1	29.9	0.0	6.9	11.5	0.5		3/10/2025 10:00	5.8	12.6	0.0	7.1	11.4	0.9	8.9
3/10/2025 10:15	5.9	22.8	0.0	6.9	11.5	1.4		3/10/2025 10:15	5.9	11.2	0.0	7.1	11.4	0.4	8.4
3/10/2025 10:30	6.4	37.0	0.0	6.9	11.4	3.4		3/10/2025 10:30	5.9	12.4	0.0	7.1	11.4	1.5	9.5
3/10/2025 10:45	6.4	37.2	0.0	6.8	11.4	4.8		3/10/2025 10:45	5.9	11.3	0.0	7.1	11.4	2.4	10.4
3/10/2025 11:00	6.4	35.2	0.0	6.9	11.4	6.1		3/10/2025 11:00	6.0	12.3	0.0	7.1	11.4	2.6	10.6
3/10/2025 11:15	6.5	37.1	0.0	6.9	11.4	2.7		3/10/2025 11:15	6.1	12.5	0.0	7.1	11.3	5.2	13.2
3/10/2025 11:30	6.5	36.8	0.0	7.0	11.3	9.7		3/10/2025 11:30	6.1	12.2	0.0	7.1	11.3	10.8	15.8
3/10/2025 11:45	6.5	36.8	0.0	6.9	11.3	6.9		3/10/2025 11:45	6.1	12.2	0.0	7.1	11.3	3.0	11.0
3/10/2025 12:00	6.5	35.1	0.0	6.9	11.4	2.9		3/10/2025 12:00	6.1	11.9	0.0	7.1	11.4	16.0	21.0
3/10/2025 12:15	6.6	37.1	0.0	6.9	11.4	12.8		3/10/2025 12:15	6.1	11.0	0.0	7.1	11.3	2.0	10.0
3/10/2025 12:30	6.7	37.4	0.0	7.0	11.3	4.9		3/10/2025 12:30	6.2	12.1	0.0	7.1	11.3	5.4	13.4
3/10/2025 12:45	6.7	36.2	0.0	7.0	11.3	5.7		3/10/2025 12:45	6.2	10.9	0.0	7.1	11.3	2.2	10.2
3/10/2025 13:00	6.7	35.4	0.0	7.0	11.3	1.8		3/10/2025 13:00	6.3	12.0	0.0	7.0	11.3	6.4	14.4
3/10/2025 13:15	6.7	33.6	0.0	6.9	11.3	7.1		3/10/2025 13:15	6.3	12.2	0.0	7.1	11.3	6.5	14.5
3/10/2025 13:30	6.9	37.9	0.0	7.0	11.2	4.5		3/10/2025 13:30	6.4	12.0	0.0	7.1	11.3	9.5	14.5
3/10/2025 13:45	6.9	37.6	0.0	7.0	11.2	1.4		3/10/2025 13:45	6.4	12.4	0.0	7.0	11.3	2.0	10.0
3/10/2025 14:00	6.9	37.4	0.0	6.9	11.2	4.2		3/10/2025 14:00	6.4	11.9	0.0	7.1	11.3	0.4	8.4
3/10/2025 14:15	6.9	38.9	0.0	6.8	11.2	4.9		3/10/2025 14:15	6.4	12.0	0.0	7.1	11.2	4.6	12.6
3/10/2025 14:30	7.0	38.1	0.0	7.0	11.2	6.0		3/10/2025 14:30	6.4	11.8	0.0	7.1	11.3	0.3	8.3
3/10/2025 14:45	6.9	36.7	0.0	7.0	11.2	4.1		3/10/2025 14:45	6.4	12.0	0.0	7.1	11.2	0.8	8.8
3/10/2025 15:00	6.9	35.6	0.0	7.0	11.2	4.6		3/10/2025 15:00	6.4	11.8	0.0	7.1	11.2	0.2	8.2
3/10/2025 15:15	6.8	34.4	0.0	6.9	11.3	2.8		3/10/2025 15:15	6.5	10.7	0.0	7.1	11.2	3.3	11.3
3/10/2025 15:30	6.9	38.5	0.0	6.9	11.2	1.5		3/10/2025 15:30	6.4	12.0	0.0	7.1	11.2	8.5	13.5
3/10/2025 15:45	6.9	38.0	0.0	6.8	11.2	5.8		3/10/2025 15:45	6.4	12.0	0.0	7.1	11.2	4.2	12.2
3/10/2025 16:00	6.9	36.0	0.0	6.9	11.2	2.2		3/10/2025 16:00	6.4	11.8	0.0	7.0	11.2	1.2	9.2
3/10/2025 16:15	6.3	16.0	0.0	6.9	11.4	0.3		3/10/2025 16:15	6.4	12.0	0.0	7.0	11.2	0.8	8.8
3/10/2025 16:30	6.8	33.7	0.0	6.9	11.2	1.5		3/10/2025 16:30	6.3	11.7	0.0	7.0	11.2	0.7	8.7
3/10/2025 16:45	6.8	33.8	0.0	6.9	11.2	3.8		3/10/2025 16:45	6.3	11.9	0.0	7.0	11.2	10.0	15.0
3/10/2025 17:00	6.7	34.7	0.0	6.9	11.2	3.4		3/10/2025 17:00	6.3	11.6	0.0	7.0	11.3	0.1	8.1
3/10/2025 17:15	6.6	29.2	0.0	6.8	11.3	3.5		3/10/2025 17:15	6.3	10.5	0.0	7.1	11.2	1.0	9.0
3/10/2025 17:30	6.9	37.2	0.0	7.0	11.2	4.7		3/10/2025 17:30	6.3	11.7	0.0	7.1	11.2	4.2	12.2
3/10/2025 17:45	6.8	36.2	0.0	7.0	11.2	2.3		3/10/2025 17:45	6.3	11.7	0.0	7.1	11.2	1.3	9.3
3/10/2025 18:00	6.8	35.8	0.0	7.0	11.2	2.2		3/10/2025 18:00	6.3	11.7	0.0	7.0	11.3	2.5	10.5
3/10/2025 18:15	6.8	37.1	0.0	6.9	11.2	2.2		3/10/2025 18:15	6.2	10.5	0.0	7.0	11.2	1.7	9.7
3/10/2025 18:30	6.8	40.5	0.0	6.6	11.2	2.1		3/10/2025 18:30	6.2	11.7	0.0	6.9	11.3	2.2	10.2
3/10/2025 18:45	6.7	38.8	0.0	6.6	11.2	2.7		3/10/2025 18:45	6.2	11.4	0.0	7.0	11.3	1.5	9.5
3/10/2025 19:00	6.6	34.9	0.0	6.8	11.3	1.7		3/10/2025 19:00	6.1	11.9	0.0	7.0	11.2	0.8	8.8
3/10/2025 19:15	6.3	28.8	0.0	6.6	11.4	4.7		3/10/2025 19:15	6.1	11.6	0.0	7.0	11.3	4.7	12.7
3/10/2025 19:30	6.6	37.5	0.0	6.8	11.2	3.8		3/10/2025 19:30	6.1	11.6	0.0	7.1	11.3	1.8	9.8
3/10/2025 19:45	6.6	36.1	0.0	6.9	11.3	2.6		3/10/2025 19:45	6.1	11.7	0.0	7.0	11.3	0.3	8.3
3/10/2025 20:00	6.5	34.7	0.0	6.9	11.3	3.8		3/10/2025 20:00		11.8	0.0	7.0	11.3	3.4	11.4
3/10/2025 20:15	6.1	26.9	0.0	6.9	11.4	11.1		3/10/2025 20:15	6.0	11.7	0.0	7.1	11.3	6.0	14.0
3/10/2025 20:30	6.4	32.7	0.0	6.9	11.3	7.1		3/10/2025 20:30	6.0	12.1	0.0	7.0	11.3	2.9	10.9
3/10/2025 20:45	6.6	39.9	0.0	7.0	11.2	5.0		3/10/2025 20:45	6.0	11.7	0.0	7.1	11.3	0.1	8.1
3/10/2025 21:00	6.5	39.3	0.0	6.7	11.3	5.9		3/10/2025 21:00	6.0	11.8	0.0	7.0	11.3	6.7	14.7
3/10/2025 21:15	6.5	39.9	0.0	6.9	11.3	4.6		3/10/2025 21:15	6.0	11.7	0.0	7.0	11.3	3.3	11.3
3/10/2025 21:30	6.6	41.7	0.0	7.0	11.2	2.9		3/10/2025 21:30	6.0	11.7	0.0	7.1	11.3	1.0	9.0
3/10/2025 21:45	6.2	29.8	0.0	7.0	11.3	3.0		3/10/2025 21:45	5.9	11.7	0.0	7.1	11.3	3.8	11.8
3/10/2025 22:00	6.1	22.9	0.0	7.0	11.4	2.1		3/10/2025 22:00	5.9	11.8	0.0	7.0	11.3	1.6	9.6
3/10/2025 22:15	5.8	15.6	0.0	6.9	11.5	1.7		3/10/2025 22:15	5.9	11.5	0.0	7.1	11.3	2.4	10.4
3/10/2025 22:30	6.5	40.0	0.0	6.9	11.3	1.6		3/10/2025 22:30	5.9	11.8	0.0	7.0	11.3	2.6	10.6
3/10/2025 22:45	6.2	28.9	0.0	7.0	11.3	2.2		3/10/2025 22:45	5.9	11.6	0.0	7.0	11.3	5.2	13.2
3/10/2025 23:00	6.5	40.7	0.0	7.0	11.2	1.4		3/10/2025 23:00	5.9	10.6	0.0	7.0	11.3	0.4	8.4
3/10/2025 23:15	6.5	40.5	0.0	7.0	11.2	2.4		3/10/2025 23:15	5.9	11.6	0.0	6.9	11.3	4.7	12.7
3/10/2025 23:30	6.5	39.3	0.0	7.0	11.2	3.4		3/10/2025 23:30	5.9	11.8	0.0	7.1	11.3	0.9	8.9
3/10/2025 23:45	5.9	21.9	0.0	6.9	11.5	1.0		3/10/2025 23:45	5.9	12.3	0.0	7.0	11.3	0.6	8.6
3/11/2025 0:00	6.4	40.4	0.0	6.8	11.3	1.0		3/11/2025 0:00	5.9	12.4	0.0	7.1	11.4	1.2	9.2
3/11/2025 0:15	6.0	28.7	0.0	6.9	11.4	3.0		3/11/2025 0:15	5.9	11.5	0.0	7.1	11.3	2.3	10.3
3/11/2025 0:30	5.9	24.8	0.0	6.9	11.4	4.3		3/11/2025 0:30	5.8	12.7	0.0	7.1	11.3	2.6	10.6
3/11/2025 0:45	5.8	20.8	0.0	7.0	11.4	1.0		3/11/2025 0:45	5.8	13.0	0.0	7.0	11.3	4.2	12.2
3/11/2025 1:00	6.3	39.5	0.0	6.8	11.3	6.2		3/11/2025 1:00	5.8	12.8	0.0	7.1	11.3	5.7	13.7
3/11/2025 1:15	6.3	37.4	0.0	6.9	11.3	3.3		3/11/2025 1:15	5.8	11.4	0.0	7.0	11.3	2.2	10.2
3/11/2025 1:30	6.4	38.8	0.0	7.0	11.3	2.5		3/11/2025 1:30	5.8	12.7	0.0	7.0	11.3	1.4	9.4
3/11/2025 1:45	6.4	37.7	0.0	7.0	11.3	3.7		3/11/2025 1:45	5.8	12.7	0.0	7.1	11.3	2.6	10.6
3/11/2025 2:00	6.4	36.6	0.0	7.0	11.3	3.5		3/11/2025 2:00	5.8	12.7	0.0	7.1	11.3	0.6	8.6
3/11/2025 2:15								3/11/2025 2:15	5.8	11.6	0.0	7.1	11.3	0.7	8.7
3/11/2025 2:30								3/11/2025 2:30	5.8	12.8	0.0	7.0	11.3	11.4	16.4
3/11/2025 2:45								3/11/2025 2:45	5.8	12.8	0.0	7.0	11.3	0.2	8.2
3/11/2025 3:00								3/11/2025 3:00	5.8	12.7	0.0	7.0	11.3	0.9	8.9
3/11/2025 3:15								3/11/2025 3:15	5.8	12.7	0.0	7.0	11.3	0.5	8.5
3/11/2025 3:30								3/11/2025 3:30	5.8	12.5	0.0	7.1	11.3	3.1	11.1
3/11/2025 3:45								3/11/2025 3:45	5.8	12.9	0.0	7.1	11.3	2.9	10.9
3/11/2025 4:00								3/11/2025 4:00	5.8	12.8	0.0	7.0	11.3	2.1	10.1
3/11/2025 4:15								3/11/2025 4:15	5.8	13.2	0.0	7.1	11.3	4.3	12.3
3/11/2025 4:30								3/11/2025 4:30	5.8	13.1	0.0	7.1	11.3	1.8	9.8
3/11/2025 4:45								3/11/2025 4:45	5.8	13.4	0.0	7.1	11.3	1.6	9.6
3/11/2025 5:00								3/11/2025 5:00	5.8	13.7	0.0	7.1	11.3	2.4	10.4
3/11/2025 5:15								3/11/2025 5:15	5.7	14.0	0.0	7.1	11.3	2.1	10.1
3/11/2025 5:30								3/11/2025 5:30	5.7	13.7	0.0	7.1	11.4	1.6	9.6
3/11/2025 5:45								3/11/2025 5:45	5.7	14.2	0.0	7.1	11.3	4.6	12.6
3/11/2025 6:00								3/11/2025 6:00	5.7	14.0	0.0	7.1	11.4	7.2	15.2
3/11/2025 6:15								3/11/2025 6:15	5.7	13.1	0.0	7.1	11.3	1.2	9.2
3/11/2025 6:30								3/11/2025 6:30	5.7	14.5	0.0	7.1	11.3	2.9	10.9
3/11/2025 6:45								3/11/2025 6:45	5.7	14.6	0.0	7.1	11.3	1.5	9.5
3/11/2025 7:00								3/11/2025 7:00		14.7	0.0	7.1	11.4	1.8	9.8
3/11/2025 7:15								3/11/2025 7:15	5.7	13.3	0.0	7.1	11.3	2.0	10.0
3/11/2025 7:30								3/11/2025 7:30	5.7	14.7	0.0	7.0	11.3	1.3	9.3
3/11/2025 7:45								3/11/2025 7:45	5.7	14.9	0.0	7.1	11.4	0.4	8.4
3/11/2025 8:00								3/11/2025 8:00	5.7	15.5	0.0	7.1	11.3	2.2	10.2
3/11/2025 8:15								3/11/2025 8:15	5.7	15.1	0.0	7.1	11.4	2.0	10.0
3/11/2025 8:30								3/11/2025 8:30	5.7	13.7	0.0	7.2	11.3	1.7	9.7
3/11/2025 8:45								3/11/2025 8:45	5.7	15.0	0.0	7.1	11.3	2.1	10.1
3/11/2025 9:00								3/11/2025 9:00	5.7	15.3	0.0	7.1	11.4	1.9	9.9



Turbidity was above the BCWQ guideline from 3/15/2025 1:45 PM until 3/162025 23:45 PM; however, these readings were erroneous and due to sediment buildup on the sensors. On March 18th, the sensor was cleaned and recalibrated which resulted in lower turbidity readings that were within the BCWQ guideline.

3/11/2025 9:15						
3/11/2025 9:30						
3/11/2025 9:45						
3/11/2025 10:00						
3/11/2025 10:15						
3/11/2025 10:30						
3/11/2025 10:45						
3/11/2025 11:00						
3/11/2025 11:15						
3/11/2025 11:30						
3/11/2025 11:45						
3/11/2025 12:00						
3/11/2025 12:15						
3/11/2025 12:30						
3/11/2025 12:45						
3/11/2025 13:00	6.4	36.1	0.0	7.2	11.2	3.0
3/11/2025 13:15	6.2	29.3	0.0	7.1	11.3	2.1
3/11/2025 13:30	6.0	24.9	0.0	6.9	11.4	1.5
3/11/2025 13:45						
3/11/2025 14:00	6.7	42.6	0.0	7.1	11.2	6.2
3/11/2025 14:15	6.7	42.6	0.0	7.1	11.2	6.7
3/11/2025 14:30	6.2	23.1	0.0	6.9	11.3	3.0
3/11/2025 14:45	6.9	44.1	0.0	7.1	11.1	10.9
3/11/2025 15:00	6.9	43.7	0.0	7.1	11.1	9.4
3/11/2025 15:15	7.0	43.4	0.0	7.1	11.1	26.8
3/11/2025 15:30	6.7	35.4	0.0	7.1	11.2	2.2
3/11/2025 15:45	6.9	43.3	0.0	7.2	11.1	4.3
3/11/2025 16:00	6.3	18.9	0.0	6.9	11.3	4.6
3/11/2025 16:15	6.2	17.4	0.0	6.7	11.3	1.6
3/11/2025 16:30	6.5	28.2	0.0	7.0	11.2	4.2
3/11/2025 16:45	6.9	44.9	0.0	7.2	11.1	5.0
3/11/2025 17:00	6.9	44.3	0.0	7.2	11.1	5.5
3/11/2025 17:15	6.9	43.7	0.0	7.2	11.1	6.4
3/11/2025 17:30	6.7	35.2	0.0	7.1	11.2	4.8
3/11/2025 17:45	6.9	43.9	0.0	7.2	11.1	2.2
3/11/2025 18:00	6.9	43.9	0.0	7.2	11.1	3.0
3/11/2025 18:15	6.9	43.6	0.0	7.2	11.1	5.3
3/11/2025 18:30	6.6	35.3	0.0	7.1	11.2	3.0
3/11/2025 18:45	6.6	41.4	0.0	6.9	11.2	2.0
3/11/2025 19:00		20.2	0.0	6.9	11.3	4.0
3/11/2025 19:15	6.7	45.0	0.0	7.1	11.2	1.5
3/11/2025 19:30	6.4	29.3	0.0	7.0	11.3	1.9
3/11/2025 19:45	6.8	46.8	0.0	7.0	11.1	1.3
3/11/2025 20:00	6.8	45.9	0.0	7.1	11.1	2.9
3/11/2025 20:15	6.8	45.2	0.0	7.0	11.1	2.0
3/11/2025 20:30	6.5	35.9	0.0	7.1	11.2	6.1
3/11/2025 20:45	6.8	44.6	0.0	7.1	11.1	3.0
3/11/2025 21:00	6.7	44.9	0.0	6.9	11.2	3.6
3/11/2025 21:15	6.8	45.5	0.0	7.1	11.1	9.1
3/11/2025 21:30	6.8	45.0	0.0	7.1	11.1	1.9
3/11/2025 21:45	6.8	44.8	0.0	7.0	11.1	4.5
3/11/2025 22:00	6.1	21.1	0.0	6.9	11.3	0.0
3/11/2025 22:15	5.9	18.0	0.0	6.7	11.4	1.4
3/11/2025 22:30	6.3	39.9	0.0	6.7	11.3	2.3
3/11/2025 22:45	6.8	46.7	0.0	7.1	11.1	10.5
3/11/2025 23:00	6.8	46.7	0.0	7.1	11.1	6.6
3/11/2025 23:15	6.8	46.6	0.0	7.2	11.1	6.4
3/11/2025 23:30	5.9	18.0	0.0	6.7	11.4	0.6
3/11/2025 23:45	6.2	29.2	0.0	7.0	11.3	3.1
3/12/2025 0:00	6.9	51.0	0.0	7.2	11.1	11.9
3/12/2025 0:15	6.9	50.8	0.0	7.2	11.1	6.5
3/12/2025 0:30	6.9	50.4	0.0	7.2	11.1	3.8
3/12/2025 0:45	6.9	50.0	0.0	7.2	11.1	4.9
3/12/2025 1:00	5.9	19.0	0.0	6.8	11.4	1.9
3/12/2025 1:15	5.8	19.1	0.0	6.7	11.4	2.4
3/12/2025 1:30	6.8	50.0	0.0	7.2	11.1	18.0
3/12/2025 1:45	5.8	19.8	0.0	6.8	11.4	1.3
3/12/2025 2:00	5.8	20.2	0.0	6.7	11.4	0.4
3/12/2025 2:15	6.7	50.3	0.0	7.2	11.1	5.4
3/12/2025 2:30	6.7	49.6	0.0	7.2	11.1	5.4
3/12/2025 2:45	6.7	49.2	0.0	7.2	11.1	6.4
3/12/2025 3:00	6.8	51.8	0.0	7.2	11.1	6.9
3/12/2025 3:15	5.8	21.9	0.0	6.8	11.4	0.4
3/12/2025 3:30	5.7	21.6	0.0	6.8	11.4	0.7
3/12/2025 3:45	5.7	21.4	0.0	6.8	11.4	1.9
3/12/2025 4:00	6.8	51.9	0.0	7.2	11.1	16.7
3/12/2025 4:15	6.7	50.1	0.0	7.2	11.1	13.8
3/12/2025 4:30	6.7	49.0	0.0	7.2	11.1	21.1
3/12/2025 4:45	6.6	47.5	0.0	7.2	11.2	10.7
3/12/2025 5:00	6.7	48.6	0.0	7.2	11.1	4.8
3/12/2025 5:15	6.6	47.9	0.0	7.2	11.1	7.9
3/12/2025 5:30	6.2	35.8	0.0	7.2	11.3	8.9
3/12/2025 5:45	6.0	35.4	0.0	7.1	11.3	9.9
3/12/2025 6:00	6.5	49.7	0.0	7.2	11.2	14.5
3/12/2025 6:15	6.4	49.6	0.0	7.2	11.2	11.3
3/12/2025 6:30	6.2	42.9	0.0	7.1	11.3	6.3
3/12/2025 6:45	6.4	50.0	0.0	7.1	11.2	13.2
3/12/2025 7:00	5.6	25.0	0.0	6.9	11.4	2.4
3/12/2025 7:15	6.2	47.0	0.0	7.1	11.3	5.4
3/12/2025 7:30	6.4	50.8	0.0	7.2	11.2	19.2
3/12/2025 7:45	6.4	49.7	0.0	7.2	11.2	4.8
3/12/2025 8:00	6.3	47.9	0.0	7.2	11.2	24.0
3/12/2025 8:15	6.3	47.2	0.0	7.2	11.2	9.6
3/12/2025 8:30	6.4	50.4	0.0	7.2	11.2	15.0
3/12/2025 8:45	6.4	49.6	0.0	7.2	11.2	5.9
3/12/2025 9:00	6.4	49.6	0.0	7.2	11.2	7.5
3/12/2025 9:15	6.4	48.4	0.0	7.2	11.2	14.8
3/12/2025 9:30	6.5	51.8	0.0	7.2	11.2	14.5
3/12/2025 9:45	6.5	50.7	0.0	7.2	11.2	30.7
3/12/2025 10:00	6.4	49.4	0.0	7.2	11.2	10.6
3/12/2025 10:15	6.4	48.1	0.0	7.2	11.2	17.7
3/12/2025 10:30	6.5	51.3	0.0	7.2	11.2	9.6
3/12/2025 10:45	6.4	50.1	0.0	7.2	11.2	14.6
3/12/2025 11:00	6.4	48.9	0.0	7.2	11.2	10.6
3/12/2025 11:15	6.4	46.8	0.0	7.2	11.2	10.5
3/12/2025 11:30	6.4	49.2	0.0	7.2	11.2	13.3
3/12/2025 11:45	6.4	47.0	0.0	7.2	11.2	10.4
3/12/2025 12:00	6.3	45.5	0.0	7.2	11.2	9.1
3/12/2025 12:15	6.3	44.0	0.0	7.2	11.2	13.9
3/12/2025 12:30	6.3	45.5	0.0	7.2	11.2	10.6
3/12/2025 12:45	6.3	44.3	0.0	7.2	11.2	9.9
3/12/2025 13:00	6.2	38.8	0.0	7.1	11.3	10.7
3/12/2025 13:15	5.8	28.1	0.0	6.9	11.4	16.9
3/12/2025 13:30	6.4	48.6	0.0	7.2	11.2	21.9
3/12/2025 13:45	6.4	47.1	0.0	7.2	11.2	22.4
3/12/2025 14:00	6.4	45.3	0.0	7.2	11.2	17.4
3/12/2025 14:15	6.3	43.0	0.0	7.1	11.2	15.1
3/12/2025 14:30	5.8	25.1	0.0	6.9	11.4	13.9
3/12/2025 14:45	6.3	39.7	0.0	7.1	11.2	21.6
3/12/2025 15:00	5.9	26.2	0.0	7.0	11.4	12.5
3/12/2025 15:15	6.4	43.2	0.0	7.1	11.2	19.0
3/12/2025 15:30	6.4	41.5	0.0	7.1	11.2	20.2
3/12/2025 15:45	6.3	39.7	0.0	7.1	11.2	16.8
3/12/2025 16:00	6.0	27.8	0.0	6.9	11.3	10.8
3/12/2025 16:15	6.4	39.5	0.0	7.1	11.2	13.5
3/12/2025 16:30	6.3	38.1	0.0	7.1	11.2	17.8
3/12/2025 16:45	5.9	23.1	0.0	6.9	11.4	9.2
3/12/2025 17:00	6.1	28.2	0.0	6.9	11.3	12.4
3/12/2025 17:15	6.4	35.9	0.0	7.0	11.2	13.3
3/12/2025 17:30	6.4	36.8	0.0	7.0	11.2	8.8
3/12/2025 17:45	6.4	35.5	0.0	7.0	11.2	7.5
3/12/2025 18:00	6.1	22.9	0.0	6.8	11.3	4.7
3/12/2025 18:15	6.0	19.1	0.0	6.7	11.3	3.2
3/12/2025 18:30	6.5	36.4	0.0	7.0	11.2	6.1
3/12/2025 18:45	6.5	35.7	0.0	7.0	11.2	7.9
3/12/2025 19:00	6.1	24.1	0.0	6.9	11.3	2.4
3/12/2025 19:15	6.5	36.3	0.0	7.1	11.2	9.7
3/12/2025 19:30	6.5	35.6	0.0	7.0	11.2	6.5

3/11/2025 9:15	5.7	15.6	0.0	7.2	11.4	1.8	9.8
3/11/2025 9:30	5.7	14.3	0.0	7.2	11.3	1.5	9.5
3/11/2025 9:45	5.7	16.0	0.0	7.2	11.3	2.3	10.3
3/11/2025 10:00		16.0	0.0	7.2	11.3	1.9	9.9
3/11/2025 10:15	5.7	15.5	0.0	7.1	11.3	2.6	10.6
3/11/2025 10:30	5.7	15.5	0.0	7.2	11.3	1.4	9.4
3/11/2025 10:45	5.7	15.7	0.0	7.2	11.3	4.9	12.9
3/11/2025 11:00	5.8	15.7	0.0	7.2	11.3	3.0	11.0
3/11/2025 11:15	5.8	15.2	0.0	7.2	11.4	5.2	13.2
3/11/2025 11:30	5.8	15.3	0.0	7.2	11.3	1.3	9.3
3/11/2025 11:45	5.8	14.9	0.0	7.1	11.3	1.5	9.5
3/11/2025 12:00	5.9	14.9	0.0	7.2	11.3	5.2	13.2
3/11/2025 12:15	5.9	14.6	0.0	7.1	11.3	2.6	10.6
3/11/2025 12:30	5.9	14.7	0.0	7.1	11.3	1.1	9.1
3/11/2025 12:45	5.9	14.2	0.0	7.1	11.3	4.4	12.4
3/11/2025 13:00	6.0	14.3	0.0	7.1	11.2	2.2	10.2
3/11/2025 13:15	6.0	13.8	0.0	7.2	11.3	1.7	9.7
3/11/2025 13:30	6.0	14.0	0.0	7.1	11.2	2.0	10.0
3/11/2025 13:45	6.1	13.8	0.0	7.1	11.2	0.4	8.4
3/11/2025 14:00	6.1	13.7	0.0	7.1	11.2	0.5	8.5
3/11/2025 14:15	6.1	13.5	0.0	7.1	11.2	1.1	9.1
3/11/2025 14:30	6.2	13.7	0.0	7.1	11.2	0.3	8.3
3/11/2025 14:45	6.3	13.2	0.0	7.1	11.2	0.6	8.6
3/11/2025 15:00	6.3	13.6	0.0	7.1	11.1	2.6	10.6
3/11/2025 15:15	6.4	13.0	0.0	7.1	11.2	0.2	8.2
3/11/2025 15:30	6.4	11.8	0.0	7.1	11.1	1.7	9.7
3/11/2025 15:45	6.4	12.9	0.0	7.0	11.1	2.3	10.3
3/11/2025 16:00	6.4	12.7	0.0	7.1	11.1	1.1	9.1
3/11/2025 16:15	6.4	13.1	0.0	7.1	11.1	1.3	9.3
3/11/2025 16:30	6.3	12.7	0.0	7.1	11.1	0.6	8.6
3/11/2025 16:45	6.3	12.8	0.0	7.1	11.1	4.2	12.2
3/11/2025 17:00	6.3	12.6	0.0	7.0	11.1	2.5	10.5
3/11/2025 17:15	6.3	12.7	0.0	7.1	11.1	0.9	8.9
3/11/2025 17:30	6.3	12.6	0.0	7.1	11.1	0.6	8.6
3/11/2025 17:45	6.3	12.9	0.0	7.1	11.1	0.2	8.2
3/11/2025 18:00	6.3	12.5	0.0	7.1	11.1	3.2	11.2
3/11/2025 18:15	6.2	12.7	0.0	7.1	11.1	1.7	9.7
3/11/2025 18:30	6.2	12.5	0.0	7.1	11.1	1.4	9.4
3/11/2025 18:45	6.2	12.5	0.0	7.0	11.1	0.4	8.4
3/11/2025 19:00	6.2	12.4	0.0	7.1	11.2	0.0	8.0
3/11/2025 19:15	6.2	12.6	0.0	7.1	11.1	0.2	8.2
3/11/2025 19:30	6.2	12.4	0.0	7.1	11.1	1.1	9.1
3/11/2025 19:45	6.2	12.4	0.0	7.1	11.1	1.6	9.6
3/11/2025 20:00	6.1	12.4	0.0	7.1	11.1	0.7	8.7
3/11/2025 20:15	6.1	12.5	0.0	7.1	11.1	0.5	8.5
3/11/2025 20:30	6.1	12.4	0.0	7.1	11.1	2.0	10.0
3/11/2025 20:45	6.1	12.7	0.0	7.0	11.1	3.2	11.2
3/11/2025 21:00	6.1	12.5	0.0	7.1	11.2	2.7	10.7
3/11/2025 21:15	6.1	12.6	0.0	7.1	11.1	0.5	8.5
3/11/2025 21:30	6.1	12.7	0.0	7.1	11.1	0.1	8.1
3/11/2025 21:45	6.1	11.9	0.0	7.1	11.1	0.5	8.5
3/11/2025 22:00	6.1	13.5	0.0	7.1	11.1	2.4	10.4
3/11/2025 22:15	6.1	12.1	0.0	7.1	11.1	3.9	11.9
3/11/2025 22:30	6.1	13.5	0.0	7.1	11.2	1.6	9.6
3/11/2025 22:45	6.1	11.9	0.0	7.1	11.1	0.4	8.4
3/11/2025 23:00	6.1	13.2	0.0	7.1	11.1	2.5	10.5
3/11/2025 23:15	6.0	13.3	0.0	7.1	11.1	0.8	8.8
3/11/2025 23:30	6.0	13.3	0.0	7.1	11.2	2.1	10.1
3/11/2025 23:45	6.0	13.5	0.0	7.1	11.1	1.4	9.4
3/12/2025 0:00	6.0	13.3	0.0	7.1	11.2	3.5	11.5
3/12/2025 0:15	6.0	13.6	0.0	7.0	11.1	2.6	10.6
3/12/2025 0:30	6.0	13.6	0.0	7.1	11.2	7.2	15.2
3/12/2025 0:45	6.0	14.4	0.0	7.1	11.2	3.1	11.1
3/12/2025 1:00	6.0	14.5	0.0	7.1	11.2	0.5	8.5
3/12/2025 1:15	6.0	13.2	0.0	7.2	11.1	1.1	9.1
3/12/2025 1:30	6.0	14.8	0.0	7.1	11.2	2.0	10.0
3/12/2025 1:45	6.0	15.6	0.0	7.2	11.2	1.7	9.7
3/12/2025 2:00	5.9	16.0	0.0	7.1	11.2	2.1	10.1
3/12/2025 2:15	5.9	14.7	0.0	7.2	11.2	1.2	9.2
3/12/2025 2:30	5.9	16.3	0.0	7.2	11.2	4.4	12.4
3/12/2025 2:45	5.9	16.7	0.0	7.2	11.2	1.2	9.2
3/12/2025 3:00	5.9	16.6	0.0	7.2	11.2	5.5	13.5
3/12/2025 3:15	5.9	17.3	0.0	7.2	11.2	2.3	10.3
3/12/2025 3:30	5.9	16.6	0.0	7.2	11.2	3.1	11.1
3/12/2025 3:45	5.9	15.1	0.0	7.2	11.1	2.5	10.5
3/12/2025 4:00	5.9	17.0	0.0	7.1	11.2	6.0	14.0
3/12/2025 4:15	5.9	17.4	0.0	7.2	11.2	1.4	9.4
3/12/2025 4:30	5.9	16.1	0.0	7.3	11.2	3.3	11.3
3/12/2025 4:45	5.9	18.3	0.0	7.2	11.2	2.2	10.2
3/12/2025 5:00	5.9	16.8	0.0	7.3	11.2	2.9	10.9
3/12/2025 5:15	5.8	19.7	0.0	7.2	11.2	3.8	11.8
3/12/2025 5:30	5.8	20.9	0.0	7.3	11.2	6.9	14.9
3/12/2025 5:45	5.8	19.2	0.0	7.3	11.2	5.2	13.2
3/12/2025 6:00	5.8	21.6	0.0	7.3	11.2	8.5	13.5
3/12/2025 6:15	5.8	19.2	0.0	7.3	11.2	5.0	13.0
3/12/2025 6:30	5.8	21.0	0.0	7.3	11.2	6.8	14.8
3/12/2025 6:45	5.8	18.1	0.0	7.3	11.2	2.8	10.8
3/12/2025 7:00	5.8	20.0	0.0	7.3	11.2	4.2	12.2
3/12/2025 7:15	5.8	20.1	0.0	7.3	11.2	4.3	12.3
3/12/2025 7:30	5.8	19.6	0.0	7.3	11.2	2.7	10.7
3/12/2025 7:45	5.8	18.3	0.0	7.3	11.2	2.4	10.4
3/12/2025 8:00	5.8	19.0	0.0	7.2	11.2	3.8	11.8
3/12/2025 8:15	5.8	18.8	0.0	7.2	11.2	1.2	9.2
3/12/2025 8:30	5.8	17.2	0.0	7.3	11.2	2.5	10.5
3/12/2025 8:45	5.8	19.6	0.0	7.2	11.2	8.1	13.1
3/12/2025 9:00	5.8	19.1	0.0	7.2	11.2	1.5	9.5
3/12/2025 9:15	5.8	19.5	0.0	7.3	11.2	2.5	10.5
3/12/2025 9:30	5.8	19.2	0.0	7.2	11.2	2.9	10.9
3/12/2025 9:45	5.8	17.6	0.0	7.3	11.2	3.2	11.2
3/12/2025 10:00	5.8	19.4	0.0	7.3	11.2	7.8	15.8
3/12/2025 10:15	5.8	17.1	0.0	7.3	11.2	5.0	13.0
3/12/2025 10:30	5.8	19.7	0.0	7.3	11.2	24.4	29.4
3/12/2025 10:45	5.8	18.4	0.0	7.3	11.2	3.1	11.1
3/12/2025 11:00	5.9	19.5	0.0	7.3	11.2	3.4	11.4
3/12/2025 11:15	5.9	17.6	0.0	7.3	11.2	3.8	11.8
3/12/2025 11:30	5.9	19.4	0.0	7.3	11.2	8.9	13.9
3/12/2025 11:45	5.9	18.7	0.0	7.3	11.2	3.1	11.1
3/12/2025 12:00	5.9	20.0	0.0	7.2	11.2	7.3	15.3
3/12/2025 12:15	5.9	19.8	0.0	7.3	11.2	3.6	11.6
3/12/2025 12:30	5.9	20.7	0.0	7.3	11.2	7.8	15.8
3/12/2025 12:45	5.9	21.3	0.0	7.4	11.2	6.6	14.6
3/12/2025 13:00	5.9	22.0	0.0	7.4	11.2	10.5	15.5
3/12/2025 13:15	5.9	22.2	0.0	7.4	11.2	13.4	18.4
3/12/2025 13:30	6.0	20.7	0.0	7.4	11.2	14.8	19.8
3/12/2025 13:45	6.0	22.6	0.0	7.3	11.2	15.3	20.3
3/12/2025 14:00	6.0	19.0	0.0	7.4	11.2	10.7	15.7
3/12/2025 14:15	6.0	21.1	0.0	7.3	11.2	9.3	14.3
3/12/2025 14:30	6.0	20.9	0.0	7.3	11.2	5.1	13.1
3/12/2025 14:45	6.0	20.4	0.0	7.3	11.2	9.1	14.1
3/12/2025 15:00	6.0	18.2	0.0	7.3	11.2	15.7	20.7
3/12/2025 15:15	6.0	21.0	0.0	7.4	11.2	15.5	20.5
3/12/2025 15:30	6.1	21.4	0.0	7.3	11.2	12.0	17.0
3/12/2025 15:45	6.1	18.7	0.0	7.3	11.2	11.0	16.0
3/12/2025 16:00	6.1	14.6	0.0	7.3	11.2	14.0	19.0
3/12/2025 16:15	6.1	19.5	0.0	7.3	11.2	9.3	14.3
3/12/2025 16:30	6.1	19.4	0.0	7.3	11.1	11.0	16.0
3/12/2025 16:45	6.1	19.0	0.0	7.3	11.2	11.0	16.0
3/12/2025 17:00	6.1	14.0	0.0	7.3	11.2	3.7	11.7
3/12/2025 17:15	6.1	17.8	0.0	7.2	11.1	7.2	15.2
3/12/2025 17:30	6.1	13.1	0.0	7.2	11.1	6.5	14.5
3/12/2025 17:45	6.1	16.2	0.0	7.1	11.1	2.0	10.0
3/12/2025 18:00	6.1	15.4	0.0	7.2	11.2	5.0	13.0
3/12/2025 18:15	6.1	13.2	0.0	7.1	11.1	1.6	9.6
3/12/2025 18:30	6.1	14.8	0.0	7.1	11.1	6.7	14.7
3/12/2025 18:45	6.1	12.7	0.0	7.1	11.1	1.2	9.2
3/12/2025 19:00	6.1	14.5	0.0	7.1	11.1	2.0	10.0
3/12/2025 19:15	6.1	12.4	0.0	7.1	11.2	1.6	9.6
3/12/2025 19:30	6.1	14.0	0.0	7.1	11.1	1.8	9.8

3/12/2025 19:45	6.0	18.1	0.0	6.8	11.3	4.5	3/12/2025 19:45	6.1	12.7	0.0	7.1	11.1	0.5	8.5
3/12/2025 20:00	5.9	17.7	0.0	6.7	11.3	3.4	3/12/2025 20:00	6.1	14.0	0.0	7.1	11.1	14.2	19.2
3/12/2025 20:15	6.0	20.2	0.0	6.8	11.3	3.7	3/12/2025 20:15	6.1	14.0	0.0	7.1	11.1	1.0	9.0
3/12/2025 20:30	6.3	30.9	0.0	7.0	11.2	3.5	3/12/2025 20:30	6.1	13.8	0.0	7.1	11.1	0.3	8.3
3/12/2025 20:45	6.5	37.2	0.0	7.0	11.2	4.6	3/12/2025 20:45	6.1	12.2	0.0	7.1	11.1	0.4	8.4
3/12/2025 21:00	6.5	36.6	0.0	7.0	11.2	5.6	3/12/2025 21:00	6.1	13.4	0.0	7.0	11.1	3.8	11.8
3/12/2025 21:15	6.4	36.5	0.0	7.0	11.2	15.3	3/12/2025 21:15	6.0	13.2	0.0	6.9	11.1	7.4	15.4
3/12/2025 21:30	6.4	36.6	0.0	7.1	11.2	5.0	3/12/2025 21:30	6.0	13.2	0.0	7.1	11.1	3.0	11.0
3/12/2025 21:45	6.4	34.9	0.0	7.1	11.2	11.1	3/12/2025 21:45	6.0	12.2	0.0	7.1	11.1	0.2	8.2
3/12/2025 22:00	6.4	37.4	0.0	7.1	11.2	3.9	3/12/2025 22:00	6.0	13.2	0.0	7.1	11.1	1.5	9.5
3/12/2025 22:15	6.4	37.4	0.0	7.0	11.2	4.3	3/12/2025 22:15	6.0	12.0	0.0	7.1	11.1	2.1	10.1
3/12/2025 22:30	6.5	38.1	0.0	7.0	11.2	6.2	3/12/2025 22:30	6.0	13.1	0.0	7.0	11.1	1.7	9.7
3/12/2025 22:45	5.9	17.2	0.0	6.7	11.3	3.5	3/12/2025 22:45	6.0	13.0	0.0	6.9	11.1	1.0	9.0
3/12/2025 23:00	5.9	23.5	0.0	6.7	11.3	4.6	3/12/2025 23:00	6.0	13.1	0.0	7.0	11.1	1.1	9.1
3/12/2025 23:15	6.1	24.3	0.0	6.9	11.3	2.2	3/12/2025 23:15	6.0	11.9	0.0	7.1	11.1	1.8	9.8
3/12/2025 23:30	6.5	41.9	0.0	7.1	11.1	6.7	3/12/2025 23:30	6.0	12.9	0.0	7.0	11.1	2.7	10.7
3/12/2025 23:45	6.3	35.2	0.0	7.0	11.2	6.9	3/12/2025 23:45	6.0	11.7	0.0	7.1	11.1	0.9	8.9
3/13/2025 0:00	6.5	42.4	0.0	7.1	11.1	6.1	3/13/2025 0:00	6.0	12.9	0.0	7.0	11.1	3.9	11.9
3/13/2025 0:15	6.5	40.8	0.0	7.1	11.2	6.1	3/13/2025 0:15	6.0	13.1	0.0	7.0	11.1	3.9	11.9
3/13/2025 0:30	6.5	40.5	0.0	7.1	11.1	4.7	3/13/2025 0:30	6.0	12.9	0.0	7.1	11.1	0.8	8.8
3/13/2025 0:45	5.8	17.1	0.0	6.7	11.3	2.0	3/13/2025 0:45	6.0	13.0	0.0	7.1	11.1	0.4	8.4
3/13/2025 1:00	5.8	16.8	0.0	6.7	11.4	0.7	3/13/2025 1:00		12.8	0.0	7.1	11.1	2.0	10.0
3/13/2025 1:15	6.5	41.7	0.0	7.0	11.2	3.3	3/13/2025 1:15	5.9	12.9	0.0	7.0	11.1	2.3	10.3
3/13/2025 1:30	6.5	41.7	0.0	7.0	11.1	4.1	3/13/2025 1:30	5.9	12.9	0.0	7.0	11.1	1.8	9.8
3/13/2025 1:45	6.5	44.3	0.0	7.0	11.1	3.8	3/13/2025 1:45	5.9	12.7	0.0	7.1	11.1	1.1	9.1
3/13/2025 2:00	6.0	24.6	0.0	6.9	11.3	4.7	3/13/2025 2:00	5.9	12.8	0.0	7.1	11.1	2.2	10.2
3/13/2025 2:15	6.5	42.2	0.0	7.1	11.1	5.5	3/13/2025 2:15	5.9	11.4	0.0	6.9	11.1	0.6	8.6
3/13/2025 2:30	6.5	41.5	0.0	7.1	11.1	5.6	3/13/2025 2:30	5.9	12.7	0.0	7.0	11.1	1.8	9.8
3/13/2025 2:45	6.5	42.8	0.0	7.1	11.1	7.8	3/13/2025 2:45	5.9	11.3	0.0	7.1	11.1	0.1	8.1
3/13/2025 3:00	6.5	42.0	0.0	7.1	11.1	10.3	3/13/2025 3:00	5.9	12.6	0.0	7.1	11.1	5.9	13.9
3/13/2025 3:15	6.4	41.0	0.0	7.1	11.2	4.0	3/13/2025 3:15	5.9	12.8	0.0	7.0	11.1	0.8	8.8
3/13/2025 3:30	5.7	16.9	0.0	6.7	11.4	1.1	3/13/2025 3:30	5.9	12.6	0.0	7.1	11.1	1.2	9.2
3/13/2025 3:45	5.7	16.7	0.0	6.7	11.4	0.7	3/13/2025 3:45	5.8	12.7	0.0	7.0	11.1	1.1	9.1
3/13/2025 4:00	6.3	40.6	0.0	7.1	11.2	3.5	3/13/2025 4:00	5.8	12.6	0.0	7.0	11.2	0.7	8.7
3/13/2025 4:15	5.8	20.3	0.0	6.8	11.3	2.4	3/13/2025 4:15	5.8	12.6	0.0	7.0	11.1	3.3	11.3
3/13/2025 4:30	6.5	44.9	0.0	7.1	11.2	1.7	3/13/2025 4:30	5.8	12.5	0.0	7.0	11.1	2.4	10.4
3/13/2025 4:45	6.5	44.8	0.0	7.1	11.1	3.3	3/13/2025 4:45	5.8	12.6	0.0	7.0	11.1	1.3	9.3
3/13/2025 5:00	6.4	43.7	0.0	7.1	11.2	9.3	3/13/2025 5:00	5.8	12.4	0.0	7.0	11.2	1.2	9.2
3/13/2025 5:15	6.4	42.1	0.0	7.1	11.2	5.5	3/13/2025 5:15	5.8	11.4	0.0	7.0	11.1	0.9	8.9
3/13/2025 5:30	6.2	36.2	0.0	6.9	11.3	1.4	3/13/2025 5:30	5.8	12.4	0.0	7.0	11.2	1.3	9.3
3/13/2025 5:45	6.3	41.2	0.0	7.1	11.2	6.9	3/13/2025 5:45	5.8	11.3	0.0	7.0	11.1	3.5	11.5
3/13/2025 6:00	6.3	41.0	0.0	7.1	11.2	5.7	3/13/2025 6:00	5.8	12.4	0.0	7.0	11.2	1.8	9.8
3/13/2025 6:15	6.3	40.7	0.0	7.1	11.2	10.2	3/13/2025 6:15	5.7	11.2	0.0	7.0	11.2	0.3	8.3
3/13/2025 6:30	6.2	37.2	0.0	7.1	11.2	3.3	3/13/2025 6:30	5.7	12.4	0.0	7.1	11.2	1.3	9.3
3/13/2025 6:45	6.2	39.2	0.0	7.1	11.2	1.1	3/13/2025 6:45	5.7	12.5	0.0	7.0	11.2	1.8	9.8
3/13/2025 7:00	6.2	37.9	0.0	7.1	11.2	0.7	3/13/2025 7:00	5.7	12.4	0.0	7.0	11.2	3.8	11.8
3/13/2025 7:15	5.8	23.1	0.0	6.9	11.4	1.6	3/13/2025 7:15	5.7	12.0	0.0	7.0	11.2	0.1	8.1
3/13/2025 7:30	6.3	43.2	0.0	7.1	11.2	7.6	3/13/2025 7:30	5.7	12.3	0.0	7.0	11.2	1.2	9.2
3/13/2025 7:45	6.3	42.0	0.0	7.1	11.2	6.1	3/13/2025 7:45	5.7	12.5	0.0	7.0	11.2	0.4	8.4
3/13/2025 8:00	6.3	39.3	0.0	7.2	11.2	4.2	3/13/2025 8:00	5.7	12.2	0.0	7.0	11.2	0.4	8.4
3/13/2025 8:15	6.3	38.3	0.0	7.1	11.2	3.8	3/13/2025 8:15	5.7	11.1	0.0	7.0	11.2	3.4	11.4
3/13/2025 8:30	5.9	20.2	0.0	7.0	11.3	1.8	3/13/2025 8:30	5.8	12.3	0.0	7.0	11.2	0.7	8.7
3/13/2025 8:45	6.4	43.8	0.0	7.2	11.2	5.2	3/13/2025 8:45	5.8	11.2	0.0	7.0	11.2	1.6	9.6
3/13/2025 9:00	6.4	43.4	0.0	7.2	11.2	6.1	3/13/2025 9:00	5.8	12.3	0.0	7.0	11.2	1.8	9.8
3/13/2025 9:15	6.4	42.3	0.0	7.2	11.2	3.6	3/13/2025 9:15	5.8	11.2	0.0	7.1	11.2	0.2	8.2
3/13/2025 9:30	5.8	16.7	0.0	6.8	11.4	0.5	3/13/2025 9:30	5.9	12.1	0.0	6.9	11.2	4.0	12.0
3/13/2025 9:45	6.5	41.5	0.0	7.1	11.2	1.8	3/13/2025 9:45	6.0	12.2	0.0	7.1	11.2	3.2	11.2
3/13/2025 10:00	6.3	24.7	0.0	7.2	11.2	1.1	3/13/2025 10:00	6.0	12.1	0.0	7.0	11.1	0.8	8.8
3/13/2025 10:15	6.9	47.1	0.0	7.2	11.1	3.6	3/13/2025 10:15	6.1	12.0	0.0	7.1	11.2	1.1	9.1
3/13/2025 10:30	6.9	45.9	0.0	7.2	11.1	8.0	3/13/2025 10:30	6.1	12.1	0.0	7.0	11.1	0.8	8.8
3/13/2025 10:45	6.9	45.0	0.0	7.2	11.1	4.9	3/13/2025 10:45	6.1	12.0	0.0	7.0	11.2	0.3	8.3
3/13/2025 11:00	6.6	31.4	0.0	7.2	11.1	4.8	3/13/2025 11:00	6.1	10.7	0.0	7.0	11.1	0.4	8.4
3/13/2025 11:15	7.0	50.9	0.0	7.2	11.0	4.2	3/13/2025 11:15	6.2	12.0	0.0	7.1	11.2	2.1	10.1
3/13/2025 11:30	7.0	48.1	0.0	7.2	11.0	4.6	3/13/2025 11:30	6.2	12.0	0.0	7.0	11.1	0.8	8.8
3/13/2025 11:45	6.9	48.0	0.0	7.2	11.1	2.6	3/13/2025 11:45	6.1	11.7	0.0	7.1	11.1	1.3	9.3
3/13/2025 12:00	6.7	40.7	0.0	7.2	11.1	1.9	3/13/2025 12:00	6.1	12.1	0.0	7.0	11.1	0.7	8.7
3/13/2025 12:15	6.9	49.8	0.0	7.2	11.1	8.4	3/13/2025 12:15	6.2	11.9	0.0	7.0	11.2	0.5	8.5
3/13/2025 12:30	6.8	48.4	0.0	7.2	11.1	4.8	3/13/2025 12:30	6.2	11.9	0.0	7.1	11.2	1.9	9.9
3/13/2025 12:45	6.8	46.9	0.0	7.2	11.1	4.0	3/13/2025 12:45	6.1	11.8	0.0	7.0	11.2	1.1	9.1
3/13/2025 13:00	6.1	16.9	0.0	6.8	11.3	4.1	3/13/2025 13:00	6.1	10.6	0.0	7.0	11.1	0.2	8.2
3/13/2025 13:15	6.0	16.5	0.0	6.7	11.3	3.0	3/13/2025 13:15	6.1	12.1	0.0	6.9	11.2	1.8	9.8
3/13/2025 13:30	6.7	44.8	0.0	7.2	11.1	4.7	3/13/2025 13:30	6.0	12.0	0.0	7.1	11.2	0.9	8.9
3/13/2025 13:45	6.6	43.8	0.0	7.2	11.2	2.9	3/13/2025 13:45	6.0	12.2	0.0	7.0	11.2	0.6	8.6
3/13/2025 14:00	6.7	38.8	0.0	7.2	11.1	2.3	3/13/2025 14:00	6.2	12.4	0.0	7.1	11.1	1.7	9.7
3/13/2025 14:15	6.9	48.2	0.0	7.2	11.1	6.2	3/13/2025 14:15	6.2	11.2	0.0	7.0	11.1	0.2	8.2
3/13/2025 14:30	6.9	47.0	0.0	7.2	11.1	10.8	3/13/2025 14:30	6.2	12.5	0.0	7.0	11.2	1.8	9.8
3/13/2025 14:45	6.9	46.0	0.0	7.2	11.1	2.3	3/13/2025 14:45	6.3	12.9	0.0	7.0	11.1	0.5	8.5
3/13/2025 15:00	6.9	40.2	0.0	7.2	11.1	5.0	3/13/2025 15:00	6.3	12.5	0.0	7.0	11.1	0.1	8.1
3/13/2025 15:15	7.0	47.1	0.0	7.2	11.1	2.9	3/13/2025 15:15	6.2	12.3	0.0	7.0	11.1	1.3	9.3
3/13/2025 15:30	6.9	45.7	0.0	7.2	11.0	3.9	3/13/2025 15:30	6.2	12.3	0.0	7.0	11.1	0.2	8.2
3/13/2025 15:45	6.8	44.3	0.0	7.2	11.1	1.7	3/13/2025 15:45	6.1	12.4	0.0	7.0	11.2	2.4	10.4
3/13/2025 16:00	6.7	37.9	0.0	7.2	11.1	1.5	3/13/2025 16:00	6.1	12.1	0.0	7.0	11.1	0.0	8.0
3/13/2025 16:15	6.8	42.5	0.0	7.2	11.1	2.2	3/13/2025 16:15	6.1	11.0	0.0	7.1	11.2	0.1	8.1
3/13/2025 16:30	6.7	41.3	0.0	7.2	11.1	4.5	3/13/2025 16:30	6.1	12.2	0.0	7.1	11.2	0.5	8.5
3/13/2025 16:45	6.9	49.3	0.0	7.2	11.1	5.4	3/13/2025 16:45	6.2	12.3	0.0	7.0	11.1	1.6	9.6
3/13/2025 17:00	7.0	48.3	0.0	7.3	11.1	3.7	3/13/2025 17:00	6.2	12.3	0.0	6.9	11.1	0.3	8.3
3/13/2025 17:15	6.9	46.5	0.0	7.2	11.1	4.7	3/13/2025 17:15	6.2	11.0	0.0	7.0	11.2	0.1	8.1
3/13/2025 17:30	6.8	45.0	0.0	7.2	11.1	2.2	3/13/2025 17:30	6.2	12.3	0.0	6.9	11.1	0.7	8.7
3/13/2025 17:45	6.9	50.5	0.0	7.2	11.1	8.4	3/13/2025 17:45	6.2	10.9	0.0	7.1	11.1	0.7	8.7
3/13/2025 18:00	6.9	48.7	0.0	7.3	11.1	8.8	3/13/2025 18:00	6.1	12.2	0.0	7.1	11.2	3.2	11.2
3/13/2025 18:15	6.9	46.8	0.0	7.2	11.1	4.2	3/13/2025 18:15	6.1	11.8	0.0	7.1	11.1	0.4	8.4
3/13/2025 18:30	6.8	45.0	0.0	7.2	11.1	3.1	3/13/2025 18:30	6.1	12.0	0.0	6.9	11.1	0.3	8.3
3/13/2025 18:45	6.0	17.6	0.0	6.8	11.3	3.8	3/13/2025 18:45	6.1	12.4	0.0	7.0	11.2	0.0	8.0
3/13/2025 19:00	6.4	29.3	0.0	7.1	11.2	1.6	3/13/2025 19:00	6.1	12.2	0.0	7.0	11.1	2.2	10.2
3/13/2025 19:15	6.9	52.5	0.0	7.2	11.1	5.0	3/13/2025 19:15	6.1	12.3	0.0	7.0	11.2	0.5	8.5
3/13/2025 19:30	6.8	50.4	0.0	7.3	11.1	4.6	3/13/2025 19:30	6.0	12.2	0.0	7.0	11.2	0.3	8.3
3/13/2025 19:45	6.8	49.2	0.0	7.3	11.1	6.0	3/13/2025 19:45	6.0	12.4	0.0	7.0	11.2	1.2	9.2
3/13/2025 20:00	6.6	41.8	0.0	7.2	11.1	4.2	3/13/2025 20:00	6.0	12.2	0.0	7.0	11.2	0.1	8.1
3/13/2025 20:15	6.8	53.0	0.0	7.2	11.1	4.3	3/13/2025 20:15	6.0	12.3	0.0	7.0	11.2	1.6	9.6
3/13/2025 20:30	6.1	25.9	0.0	7.0	11.3	1.2	3/13/2025 20:30	6.0	12.2	0.0	7.0	11.2	0.8	8.8
3/13/2025 20:45	6.7	49.7	0.0	7.1	11.2	5.7	3/13/2025 20:45	6.0	11.0	0.0	7.0	11.2	0.7	8.7
3/13/2025 21:00	6.7	49.3	0.0	7.2	11.1	4.1	3/13/2025 21:00	5.9	12.2	0.0	7.0	11.2	1.4	9.4
3/13/2025 21:15	6.7	51.8	0.0	7.2	11.1	5.3	3/13/2025 21:15	5.9	12.5	0.0	7.0	11.2	0.4	8.4
3/13/2025 21:30	6.7	50.5	0.0	7.2	11.1	8.6	3/13/2025 21:30	5.9	12.2	0.0	7.0	11.2	0.2	8.2
3/13/2025 21:45	6.7	49.2	0.0	7.2	11.1	8.0	3/13/2025 21:45	5.9	11.0	0.0	7.0	11.2	0.5	8.5
3/13/2025 22:00	6.5	50.2	0.0	7.1	11.2	8.4	3/13/2025 22:00	5.8	12.4	0.0	7.0	11.3	0.1	8.1
3/13/2025 22:15	6.7	52.3	0.0	7.3	11.1	4.9	3/13/2025 22:15	5.8	12.0	0.0	7.1	11.2	1.8	9.8
3/13/2025 22:30	6.6	50.8	0.0	7.3	11.2	2.5	3/13/2025 22:30	5.8	12.6	0.0	7.0	11.2	2.3	10.3
3/13/2025 22:45	6.3	35.1	0.0	7.2	11.2	6.9	3/13/2025 22:45	5.8	12.3	0.0	6.8	11.2	0.0	8.0
3/13/2025 23:00	6.7	54.1	0.0	7.3	11.2	6.7	3/13/2025 23:00	5.7	12.3	0.0	7.0	11.3	0.8	8.8
3/13/2025 23:15	6.6	52.2	0.0	7.3	11.2	5.0	3/13/2025 23:15	5.7	13.1	0.0	7.1	11.3	1.9	9.9
3/13/2025 23:30	6.5	51.4	0.0	7.3	11.2	6.8	3/13/2025 23:30	5.6	15.5	0.0	7.2	11.3	9.7	14.7
3/13/2025 23:45	6.3	46.3	0.0	7.1	11.2	12.5	3/13/2025 23:45	5.5	15.6	0.0	7.1	11.3	13.7	18.7
3/14/2025 0:00	5.9	33.1	0.0	7.0	11.4	21.2	3/14/2025 0:00	5.5	13.7	0.0	7.2	11.3	11.1	16.1
3/14/2025 0:15	6.4	53.2	0.0	7.3	11.2	12.8	3/14/2025 0:15	5.6	14.7	0.0	7.2	11.3	6.6	14.6
3/14/2025 0:30	6.3	49.3	0.0	7.1	11.2	9.8	3/14/2025 0:30	5.6	12.9	0.0	7.1	11.3	3.2	11.2
3/14/2025 0:45	6.2	44.5	0.0	7.0	11.3	6.6	3/14/2025 0:45	5.6	14.5	0.0	7.0	11.3	4.1	12.1
3/14/2025 1:00	5.8	30.0	0.0	6.9	11.4	2.9	3/14/2025 1:00	5.6	14.5	0.0	7.1	11.3	1.6	9.6
3/14/2025 1:15	5.7	28.5	0.0	6.9	11.4	2.6	3/14/2025 1:15	5.6	14.1	0.0	7.1	11.3	1.7	9.7
3/14/2025 1:30	5.7	24.1	0.0	6.9	11.4	1.0	3/14/2025 1:30	5.6	14.4	0.0	7.1	11.3	0.5	8.5
3/14/2025 1:45	6.6	59.3	0.0	7.1	11.2	5.4	3/14/2025 1:45	5.5	14.0	0.0	7.1	11.3	0.3	8.3
3/14/2025 2:00	6.2	36.5	0.0	7.2	11.2	3.0	3/14/2025 2:00	5.5	14.6	0.0	7.0	11.3	2.2	10.2
3/14/2025 2:15	5.5	19.2	0.0	6.8	11.5	0.8	3/14/2025 2:15	5.5	14.3	0.0	7.1	11.3	1.0	9.0
3/14/2025 2:30	5.7	27.3	0.0	7.0	11.4	3.4	3/14/2025 2:30	5.5	14.4	0.0	7.1	11.3	0.6	8.6
3/14/2025 2:45	6.5	57.8	0.0	7.2	11.2	11.0	3/14/2025 2:45	5.5	13.8	0.0	7.1	11.3	0.3	8.3
3/14/2025 3:00	6.5	55.9	0.0	7.3	11.2	5.5	3/14/2025 3:00	5.5	14.1	0.0	7.1	11.3	0.2	8.2
3/14/2025 3:15	6.4	54.1	0.0	7.3	11.2	5.1	3/14/2025 3:15	5.5	13.8	0.0	7.1	11.3	0.8	8.8
3/14/2025 3:30	6.2	46.5	0.0	7.2	11.3	6.2	3/14/2025 3:30	5.5	13.9	0.0	7.1	11.3	0.8	8.8
3/14/2025 3:45	6.4	52.8	0.0	7.3	11.2	6.9	3/14/2025 3:45	5.5	13.7	0.0	7.1	11.3	0.1	8.1
3/14/2025 4:00	6.3	51.0	0.0	7.3	11.2	8.3	3/14/2025 4:00	5.5	14.1	0.0	7.0	11.3	1.5	9.5
3/14/2025 4:15	6.3	49.2	0.0	7.3	11.3	6.5	3/14/2025 4:15	5.5	13.8	0.0	7.1	11.3	0.8	8.8
3/14/2025 4:30	6.1	42.3	0.0	7.2	11.3	7.6	3/14/2025 4:30	5.5	13.8	0.0	7.0	11.3	0.6	8.6
3/14/2025 4:45	5.7	26.2	0.0	7.1	11.4	6.1	3/14/2025 4:45	5.5	13.7	0.0	7.1	11.3	0.6	8.6
3/14/2025 5:00	6.3	54.1	0.0	7.1	11.3	4.6	3/14/2025 5:00	5.4	13.8	0.0	7.1	11.3	1.9	9.9
3/14/2025 5:15	6.2	49.1	0.0	7.1	11.3	6.9	3/14/2025 5:15	5.4	13.2	0.0	7.0	11.3	0.3	8.3
3/14/2025 5:30	6.1	46.1	0.0	7.0	11.3	3.9	3/14/2025 5:30	5.4	13.4	0.0	7.1	11.3	0.9	8.9
3/14/2025 5:45	5.7	31.3	0.0	7.0	11.4	4.3	3/14/2025 5:45	5.4	13.3	0.0	7.1	11.3	0.6	8.6
3/14/2025 6:00	6.2	53.5	0.0	7.0	11.3	20.9	3/14/2025 6:00	5.4	13.7	0.0	7.1	11.4	3.3	11.3

3/14/2025 6:15	6.3	51.6	0.0	7.2	11.3	8.7	3/14/2025 6:15	5.4	13.3	0.0	7.0	11.4	0.7	8.7
3/14/2025 6:30	5.6	33.7	0.0	7.0	11.5	5.9	3/14/2025 6:30	5.4	13.4	0.0	7.1	11.3	0.2	8.2
3/14/2025 6:45	6.6	64.2	0.0	7.3	11.2	10.3	3/14/2025 6:45	5.4	13.6	0.0	7.1	11.3	1.7	9.7
3/14/2025 7:00	6.7	65.9	0.0	7.3	11.1	7.4	3/14/2025 7:00	5.4	13.8	0.0	7.0	11.4	1.0	9.0
3/14/2025 7:15	6.6	65.1	0.0	7.3	11.2	10.1	3/14/2025 7:15	5.4	13.8	0.0	7.0	11.3	0.4	8.4
3/14/2025 7:30	6.6	64.2	0.0	7.3	11.2	15.1	3/14/2025 7:30	5.4	14.3	0.0	7.1	11.4	1.3	9.3
3/14/2025 7:45	5.3	20.0	0.0	6.9	11.5	4.2	3/14/2025 7:45	5.3	13.9	0.0	7.1	11.4	3.4	11.4
3/14/2025 8:00	6.5	65.1	0.0	7.2	11.2	8.2	3/14/2025 8:00	5.3	14.3	0.0	7.1	11.4	5.9	13.9
3/14/2025 8:15	6.6	66.6	0.0	7.3	11.2	10.2	3/14/2025 8:15	5.3	13.7	0.0	7.1	11.4	3.6	11.6
3/14/2025 8:30	6.6	67.1	0.0	7.3	11.2	9.1	3/14/2025 8:30	5.3	13.8	0.0	7.0	11.4	0.4	8.4
3/14/2025 8:45	5.6	23.0	0.0	7.1	11.4	1.5	3/14/2025 8:45	5.3	13.6	0.0	7.1	11.4	1.4	9.4
3/14/2025 9:00	5.3	18.9	0.0	6.8	11.6	0.3	3/14/2025 9:00	5.4	12.3	0.0	7.0	11.4	1.0	9.0
3/14/2025 9:15	6.6	67.9	0.0	7.3	11.2	8.1	3/14/2025 9:15	5.4	13.5	0.0	7.1	11.4	1.1	9.1
3/14/2025 9:30	6.7	68.9	0.0	7.3	11.2	5.0	3/14/2025 9:30	5.4	13.8	0.0	7.0	11.4	1.2	9.2
3/14/2025 9:45	6.8	69.9	0.0	7.3	11.1	7.4	3/14/2025 9:45	5.5	13.5	0.0	7.1	11.4	0.3	8.3
3/14/2025 10:00	5.6	20.3	0.0	7.0	11.4	3.2	3/14/2025 10:00	5.5	13.5	0.0	7.1	11.4	0.3	8.3
3/14/2025 10:15	5.5	18.7	0.0	6.8	11.5	0.5	3/14/2025 10:15	5.6	13.2	0.0	7.1	11.3	0.0	8.0
3/14/2025 10:30	6.9	67.9	0.0	7.3	11.1	7.5	3/14/2025 10:30	5.7	13.2	0.0	7.0	11.3	0.8	8.8
3/14/2025 10:45	7.1	69.5	0.0	7.3	11.0	3.9	3/14/2025 10:45	5.7	13.2	0.0	7.1	11.3	0.7	8.7
3/14/2025 11:00	7.1	69.9	0.0	7.3	11.0	5.2	3/14/2025 11:00	5.8	13.2	0.0	7.1	11.3	1.8	9.8
3/14/2025 11:15	5.8	18.9	0.0	6.8	11.4	1.1	3/14/2025 11:15	5.8	13.0	0.0	7.1	11.3	1.5	9.5
3/14/2025 11:30	6.6	41.4	0.0	7.2	11.1	2.7	3/14/2025 11:30	5.9	13.0	0.0	7.0	11.3	0.1	8.1
3/14/2025 11:45	7.2	65.5	0.0	7.3	11.0	6.2	3/14/2025 11:45	6.0	12.8	0.0	7.1	11.2	1.1	9.1
3/14/2025 12:00	7.3	65.0	0.0	7.3	11.0	8.5	3/14/2025 12:00	6.1	12.9	0.0	7.1	11.2	0.3	8.3
3/14/2025 12:15	7.4	66.9	0.0	7.3	10.9	7.9	3/14/2025 12:15	6.2	12.7	0.0	7.1	11.2	0.2	8.2
3/14/2025 12:30	7.5	67.4	0.0	7.3	10.9	11.6	3/14/2025 12:30	6.2	12.9	0.0	7.1	11.2	8.4	13.4
3/14/2025 12:45	6.6	20.5	0.0	7.0	11.1	4.4	3/14/2025 12:45	6.3	12.9	0.0	7.1	11.1	2.2	10.2
3/14/2025 13:00	6.4	18.1	0.0	6.9	11.2	0.6	3/14/2025 13:00	6.4	12.6	0.0	7.1	11.1	0.2	8.2
3/14/2025 13:15	7.6	67.2	0.0	7.3	10.8	18.4	3/14/2025 13:15	6.4	12.5	0.0	7.1	11.1	0.3	8.3
3/14/2025 13:30	7.7	67.2	0.0	7.3	10.9	9.9	3/14/2025 13:30	6.5	12.6	0.0	7.1	11.1	3.2	11.2
3/14/2025 13:45	7.7	67.5	0.0	7.3	10.8	5.5	3/14/2025 13:45	6.5	12.6	0.0	7.0	11.1	0.2	8.2
3/14/2025 14:00	7.6	67.0	0.0	7.4	10.9	3.0	3/14/2025 14:00		12.6	0.0	7.1	11.1	0.9	8.9
3/14/2025 14:15	7.7	66.8	0.0	7.3	10.8	3.9	3/14/2025 14:15	6.5	12.4	0.0	7.1	11.0	0.5	8.5
3/14/2025 14:30	6.7	18.7	0.0	6.9	11.1	1.0	3/14/2025 14:30	6.6	12.5	0.0	7.1	11.0	0.1	8.1
3/14/2025 14:45	6.6	18.2	0.0	6.8	11.1	2.7	3/14/2025 14:45	6.6	12.4	0.0	7.1	11.0	0.1	8.1
3/14/2025 15:00	7.7	66.5	0.0	7.3	10.8	4.3	3/14/2025 15:00	6.6	12.4	0.0	7.1	11.0	1.2	9.2
3/14/2025 15:15	7.7	66.8	0.0	7.3	10.8	6.8	3/14/2025 15:15	6.5	12.4	0.0	7.1	11.0	0.1	8.1
3/14/2025 15:30	7.2	46.3	0.0	7.2	11.0	5.3	3/14/2025 15:30	6.6	12.5	0.0	7.1	11.0	0.1	8.1
3/14/2025 15:45	6.6	18.8	0.0	6.9	11.1	2.3	3/14/2025 15:45	6.6	12.3	0.0	7.1	11.1	0.4	8.4
3/14/2025 16:00	7.5	66.4	0.0	7.2	10.9	2.1	3/14/2025 16:00	6.6	12.4	0.0	7.1	11.0	0.9	8.9
3/14/2025 16:15	7.7	68.0	0.0	7.3	10.8	7.2	3/14/2025 16:15	6.6	12.3	0.0	7.0	11.0	0.2	8.2
3/14/2025 16:30	7.6	67.5	0.0	7.3	10.9	9.4	3/14/2025 16:30	6.6	11.1	0.0	7.1	11.0	0.0	8.0
3/14/2025 16:45	6.9	26.6	0.0	7.2	10.9	1.4	3/14/2025 16:45	6.5	12.5	0.0	7.1	11.0	1.4	9.4
3/14/2025 17:00	6.5	17.9	0.0	6.8	11.2	0.5	3/14/2025 17:00	6.5	12.3	0.0	7.0	11.0	0.0	8.0
3/14/2025 17:15	7.6	66.7	0.0	7.3	10.8	17.8	3/14/2025 17:15	6.6	12.3	0.0	7.1	11.0	0.2	8.2
3/14/2025 17:30	7.6	65.9	0.0	7.3	10.9	7.4	3/14/2025 17:30	6.6	12.3	0.0	7.1	11.0	0.1	8.1
3/14/2025 17:45	7.6	66.9	0.0	7.3	10.8	3.5	3/14/2025 17:45	6.5	12.3	0.0	7.0	11.0	0.0	8.0
3/14/2025 18:00	6.6	19.4	0.0	7.0	11.1	4.9	3/14/2025 18:00	6.5	12.3	0.0	7.1	11.0	0.1	8.1
3/14/2025 18:15	6.4	17.8	0.0	6.8	11.2	0.6	3/14/2025 18:15	6.5	12.3	0.0	7.1	11.0	0.0	8.0
3/14/2025 18:30	7.5	66.6	0.0	7.3	10.9	7.1	3/14/2025 18:30	6.5	12.4	0.0	7.0	11.0	4.6	12.6
3/14/2025 18:45	7.5	66.8	0.0	7.3	10.9	7.2	3/14/2025 18:45	6.4	12.2	0.0	7.1	11.0	0.0	8.0
3/14/2025 19:00	7.6	71.9	0.0	7.4	10.9	9.3	3/14/2025 19:00	6.4	12.3	0.0	7.1	11.0	0.4	8.4
3/14/2025 19:15	6.3	18.3	0.0	6.9	11.2	3.7	3/14/2025 19:15	6.3	12.2	0.0	7.0	11.0	6.1	14.1
3/14/2025 19:30	7.1	62.6	0.0	7.2	11.0	13.8	3/14/2025 19:30	6.3	11.3	0.0	7.0	11.0	0.0	8.0
3/14/2025 19:45	6.4	21.5	0.0	7.1	11.1	3.2	3/14/2025 19:45	6.2	12.3	0.0	7.0	11.0	0.1	8.1
3/14/2025 20:00	7.4	69.8	0.0	7.4	10.9		3/14/2025 20:00	6.2	11.3	0.0	7.1	11.0	0.0	8.0
3/14/2025 20:15	7.2	63.6	0.0	7.2	10.9	3.5	3/14/2025 20:15	6.1	12.3	0.0	7.0	11.1	1.6	9.6
3/14/2025 20:30	7.1	52.6	0.0	7.2	10.9	3.8	3/14/2025 20:30	6.1	11.2	0.0	7.0	11.1	0.1	8.1
3/14/2025 20:45	6.1	23.6	0.0	6.9	11.2	0.5	3/14/2025 20:45	6.1	12.4	0.0	7.1	11.1	0.2	8.2
3/14/2025 21:00	6.5	30.8	0.0	7.2	11.1	2.1	3/14/2025 21:00	6.0	11.1	0.0	7.0	11.1	0.0	8.0
3/14/2025 21:15	7.2	75.1	0.0	7.0	11.0	2.2	3/14/2025 21:15	6.0	12.4	0.0	7.0	11.1	1.0	9.0
3/14/2025 21:30	7.3	74.6	0.0	7.2	10.9	11.2	3/14/2025 21:30	5.9	12.4	0.0	7.1	11.1	0.0	8.0
3/14/2025 21:45	5.9	19.0	0.0	6.9	11.3	1.0	3/14/2025 21:45	5.9	12.3	0.0	7.0	11.2	0.0	8.0
3/14/2025 22:00	6.6	51.9	0.0	6.9	11.1	4.6	3/14/2025 22:00	5.9	11.1	0.0	7.0	11.1	0.5	8.5
3/14/2025 22:15	7.2	73.9	0.0	7.2	10.9	6.7	3/14/2025 22:15	5.9	12.3	0.0	7.1	11.1	0.9	8.9
3/14/2025 22:30	7.2	73.0	0.0	7.3	10.9	4.4	3/14/2025 22:30	5.9	12.5	0.0	7.0	11.1	0.2	8.2
3/14/2025 22:45	5.8	18.8	0.0	6.9	11.3	1.4	3/14/2025 22:45	5.8	12.4	0.0	7.1	11.2	1.7	9.7
3/14/2025 23:00	7.0	65.5	0.0	7.2	11.0	5.9	3/14/2025 23:00	5.8	11.2	0.0	7.1	11.1	0.0	8.0
3/14/2025 23:15	7.1	72.1	0.0	7.3	11.0	5.5	3/14/2025 23:15	5.8	12.2	0.0	6.9	11.2	1.4	9.4
3/14/2025 23:30	7.2	74.6	0.0	7.4	10.9	4.2	3/14/2025 23:30	5.8	12.3	0.0	7.0	11.2	0.0	8.0
3/14/2025 23:45	5.8	18.5	0.0	6.9	11.3	2.3	3/14/2025 23:45	5.8	11.2	0.0	7.0	11.1	0.8	8.8
3/15/2025 0:00	7.0	73.4	0.0	7.3	11.0	2.3	3/15/2025 0:00	5.8	12.3	0.0	7.0	11.2	0.0	8.0
3/15/2025 0:15	7.1	72.7	0.0	7.3	11.0	3.2	3/15/2025 0:15	5.7	11.1	0.0	7.0	11.2	0.8	8.8
3/15/2025 0:30	5.8	19.7	0.0	7.0	11.3	0.8	3/15/2025 0:30	5.7	12.4	0.0	7.0	11.2	0.1	8.1
3/15/2025 0:45	6.1	50.7	0.0	6.9	11.4	4.4	3/15/2025 0:45	5.7	11.0	0.0	7.0	11.2	0.0	8.0
3/15/2025 1:00	6.4	34.4	0.0	7.3	11.1	0.9	3/15/2025 1:00	5.7	12.3	0.0	7.1	11.2	0.1	8.1
3/15/2025 1:15	5.6	18.0	0.0	6.8	11.4	1.9	3/15/2025 1:15	5.7	12.4	0.0	7.0	11.2	0.0	8.0
3/15/2025 1:30	6.2	59.3	0.0	6.9	11.4	4.8	3/15/2025 1:30	5.7	12.2	0.0	7.0	11.2	0.0	8.0
3/15/2025 1:45	7.1	75.4	0.0	7.3	11.0	5.4	3/15/2025 1:45	5.7	12.3	0.0	7.0	11.2	0.1	8.1
3/15/2025 2:00	7.1	73.9	0.0	7.4	11.0	6.4	3/15/2025 2:00	5.6	12.1	0.0	7.1	11.2	0.2	8.2
3/15/2025 2:15	7.1	72.7	0.0	7.4	11.0	10.3	3/15/2025 2:15	5.6	12.2	0.0	7.0	11.2	0.6	8.6
3/15/2025 2:30	5.6	18.7	0.0	6.9	11.4	3.5	3/15/2025 2:30	5.6	12.1	0.0	7.0	11.2	0.0	8.0
3/15/2025 2:45	7.0	72.0	0.0	7.3	11.0	2.3	3/15/2025 2:45	5.6	12.2	0.0	7.0	11.2	0.1	8.1
3/15/2025 3:00	7.1	72.9	0.0	7.4	11.0	2.4	3/15/2025 3:00	5.6	12.2	0.0	7.1	11.2	0.0	8.0
3/15/2025 3:15	7.1	73.7	0.0	7.4	11.0	3.6	3/15/2025 3:15	5.5	12.3	0.0	7.0	11.2	0.0	8.0
3/15/2025 3:30	5.6	19.6	0.0	7.0	11.3	2.7	3/15/2025 3:30	5.5	12.2	0.0	7.1	11.2	0.0	8.0
3/15/2025 3:45	7.0	75.2	0.0	7.3	11.0	3.7	3/15/2025 3:45	5.5	12.2	0.0	7.0	11.2	0.1	8.1
3/15/2025 4:00	6.0	29.7	0.0	7.2	11.2	1.4	3/15/2025 4:00	5.5	12.0	0.0	7.0	11.2	0.2	8.2
3/15/2025 4:15	5.5	20.8	0.0	6.9	11.4	3.0	3/15/2025 4:15	5.5	12.1	0.0	7.0	11.2	0.0	8.0
3/15/2025 4:30	7.0	74.8	0.0	7.4	11.0	165.9	3/15/2025 4:30	5.5	12.1	0.0	7.1	11.2	0.3	8.3
3/15/2025 4:45	7.0	75.1	0.0	7.4	11.0	8.4	3/15/2025 4:45	5.5	11.0	0.0	7.0	11.2	0.0	8.0
3/15/2025 5:00	6.4	54.4	0.0	7.3	11.2	6.0	3/15/2025 5:00	5.5	12.1	0.0	7.0	11.2	0.0	8.0
3/15/2025 5:15	5.4	18.7	0.0	6.8	11.4	0.9	3/15/2025 5:15	5.5	12.1	0.0	7.0	11.2	0.8	8.8
3/15/2025 5:30	6.9	78.1	0.0	7.4	11.0	3.8	3/15/2025 5:30	5.4	11.9	0.0	7.1	11.3	0.0	8.0
3/15/2025 5:45	6.9	79.6	0.0	7.2	11.0	10.1	3/15/2025 5:45	5.4	12.2	0.0	7.0	11.2	0.0	8.0
3/15/2025 6:00	6.7	70.9	0.0	7.2	11.1	5.8	3/15/2025 6:00		12.0	0.0	7.0	11.2	3.8	11.8
3/15/2025 6:15	5.4	18.8	0.0	6.9	11.4	3.5	3/15/2025 6:15	5.4	12.2	0.0	7.0	11.2	0.3	8.3
3/15/2025 6:30	6.8	78.9	0.0	7.3	11.0	2.7	3/15/2025 6:30	5.4	12.0	0.0	7.1	11.2	0.0	8.0
3/15/2025 6:45	6.9	78.1	0.0	7.4	11.0	3.2	3/15/2025 6:45	5.4	12.1	0.0	7.0	11.2	3.1	11.1
3/15/2025 7:00	6.3	54.0	0.0	7.3	11.2	6.4	3/15/2025 7:00	5.4	11.9	0.0	7.1	11.2	0.0	8.0
3/15/2025 7:15	5.4	18.7	0.0	6.8	11.4	0.3	3/15/2025 7:15	5.4	12.1	0.0	7.0	11.2	0.0	8.0
3/15/2025 7:30	6.9	78.0	0.0	7.3	11.0	7.5	3/15/2025 7:30	5.4	11.9	0.0	7.1	11.2	0.0	8.0
3/15/2025 7:45	6.9	77.6	0.0	7.4	11.0	8.7	3/15/2025 7:45	5.4	12.0	0.0	7.0	11.2	0.6	8.6
3/15/2025 8:00	6.4	47.7	0.0	7.4	11.1	2.6	3/15/2025 8:00	5.4	11.9	0.0	7.0	11.2	0.1	8.1
3/15/2025 8:15	5.4	18.3	0.0	6.8	11.5	1.4	3/15/2025 8:15	5.4	12.1	0.0	7.0	11.3	0.0	8.0
3/15/2025 8:30	6.9	76.6	0.0	7.4	11.0	11.5	3/15/2025 8:30	5.4	11.9	0.0	7.0	11.2	0.1	8.1
3/15/2025 8:45	7.0	75.4	0.0	7.4	11.0	6.3	3/15/2025 8:45	5.4	12.0	0.0	7.1	11.2	0.0	8.0
3/15/2025 9:00	5.5	18.7	0.0	6.9	11.4	0.8	3/15/2025 9:00	5.5	11.9	0.0	7.1	11.3	0.0	8.0
3/15/2025 9:15	6.8	66.8	0.0	7.3	11.0	3.7	3/15/2025 9:15	5.4	12.0	0.0	7.1	11.2	0.0	8.0
3/15/2025 9:30	7.0	75.3	0.0	7.4	11.0	5.2	3/15/2025 9:30	5.5	12.0	0.0	7.0	11.2	0.0	8.0
3/15/2025 9:45	7.0	75.1	0.0	7.4	11.0	5.8	3/15/2025 9:45	5.5	10.9	0.0	7.1	11.2	0.0	8.0
3/15/2025 10:00	5.5	18.6	0.0	6.9	11.4	0.4	3/15/2025 10:00	5.5	12.0	0.0	7.1	11.2	0.0	8.0
3/15/2025 10:15	6.6	65.7	0.0	7.3	11.2	2.6	3/15/2025 10:15	5.5	10.8	0.0	7.1	11.3	0.0	8.0
3/15/2025 10:30	7.0	73.4	0.0	7.4	11.0	6.5	3/15/2025 10:30	5.5	12.1	0.0	7.1	11.3	3.1	11.1
3/15/2025 10:45	7.0	73.5	0.0	7.4	11.1	17.5	3/15/2025 10:45	5.5	12.3	0.0	7.1	11.3	0.0	8.0
3/15/2025 11:00	5.4	18.2	0.0	6.8	11.5	5.3	3/15/2025 11:00	5.4	12.6	0.0	7.1	11.3	0.0	8.0
3/15/2025 11:15	6.3	59.9	0.0	7.1	11.3	19.7	3/15/2025 11:15	5.4	12.0	0.0	7.1	11.3	0.1	8.1
3/15/2025 11:30	6.9	72.1	0.0	7.4	11.1	16.5	3/15/2025 11:30	5.4	14.4	0.0	7.1	11.3	0.5	8.5
3/15/2025 11:45	7.0	73.1	0.0	7.4	11.1	36.4	3/15/2025 11:45	5.5	13.2	0.0	7.1	11.3	1.0	9.0
3/15/2025 12:00	6.6	64.6	0.0	7.4	11.2	18.3	3/15/2025 12:00	5.5	14.8	0.0	7.2	11.3	1.1	9.1
3/15/2025 12:15	5.4	20.6	0.0	6.9	11.5	7.2	3/15/2025 12:15	5.5	14.6	0.0	7.2	11.3	0.5	8.5
3/15/2025 12:30	5.4	19.9	0.0	6.9	11.5	2.3	3/15/2025 12:30	5.5	14.2	0.0	7.1	11.3	0.3	8.3
3/15/2025 12:45	5.4	19.6	0.0	6.8	11.5	11.1	3/15/2025 12:45	5.5	14.7	0.0	7.2	11.3	0.2	8.2
3/15/2025 13:00	5.3	19.6	0.0	6.9	11.6	4.0	3/15/2025 13:00	5.4	15.4	0.0	7.2	11.3	2.2	10.2
3/15/2025 13:15	5.3	20.2	0.0	6.8	11.6	4.3	3/15/2025 13:15	5.4	15.7	0.0	7.2	11.3	7.0	15.0
3/15/2025 13:30	5.2	21.5	0.0	6.9	11.6	7.8	3/15/2025 13:30	5.3	19.7	0.0	7.3	11.3	20.6	25.6
3/15/2025 13:45	5.2	24.0	0.0	6.9	11.6	53.6	3/15/2025 13:45	5.3	19.1	0.0	7.4	11.4	29.4	34.4
3/15/2025 14:00	6.5	73.5	0.0	7.3	11.3	33.4	3/15/2025 14:00	5.3	21.4	0.0	7.4	11.4	20.2	25.2
3/15/2025 14:15	6.8	74.6	0.0	7.5	11.2	39.4	3/15/2025 14:15	5.3	22.3	0.0	7.4	11.4	24.1	29.1
3/15/2025 14:30	6.8	74.4	0.0	7.5	11.2	41.9	3/15/2025 14:30	5.2	21.1	0.0	7.3	11.4	15.1	20.1
3/15/2025 14:45	5.7	34.8	0.0	7.3	11.4	33.2	3/15/2025 14:45	5.2	20.1	0.0	7.4	11.4	8.3	13.3
3/15/2025 15:00	5.2	27.4	0.0	7.0	11.6	11.9	3/15/2025 15:00	5.3	22.6	0.0	7.4	11.4	8.2	13.2
3/15/2025 15:15	6.8	76.0	0.0	7.4	11.2	20.2	3/15/2025 15:15	5.3	20.0	0.0	7.4	11.4	5.2	13.2
3/15/2025 15:30	6.7	69.3	0.0	7.4	11.2	20.5	3/15/2025 15:30	5.4	22.1	0.0	7.4	11.3	6.8	14.8
3/15/2025 15:45	7.0	77.2	0.0	7.5	11.1	26.0	3/15/2025 15:45	5.4	22.2	0.0	7.4	11.4	4.7	12.7
3/15/2025 16:00	5.3	27.5	0.0	7.0	11.6	7.3	3/15/2025 16:00	5.4	21.7	0.0	7.3	11.3	7.4	15.4
3/15/2025 16:15	6.9	78.0	0.0	7.4	11.1	27.0	3/15/2025 16:15	5.4	21.4	0.0	7.3	11.3	4.8	12.8
3/15/2025 16:30	7.0	77.1	0.0	7.5	11.1	23.5	3/15/2025 16:30	5.4	21.9	0.0	7.3	11.3	5.0	13.0

3/15/2025 16:45	6.8	69.9	0.0	7.4	11.2	24.5	3/15/2025 16:45	5.5	23.1	0.0	7.4	11.3	4.5	12.5
3/15/2025 17:00	5.4	28.3	0.0	7.0	11.5	52.3	3/15/2025 17:00		22.2	0.0	7.4	11.3	4.3	12.3
3/15/2025 17:15	6.9	79.1	0.0	7.4	11.1	20.9	3/15/2025 17:15	5.5	21.7	0.0	7.3	11.3	4.2	12.2
3/15/2025 17:30	7.0	79.0	0.0	7.4	11.1	19.8	3/15/2025 17:30	5.5	21.0	0.0	7.3	11.3	2.7	10.7
3/15/2025 17:45	6.3	45.0	0.0	7.4	11.2	32.4	3/15/2025 17:45	5.5	18.8	0.0	7.3	11.3	2.5	10.5
3/15/2025 18:00	5.4	26.5	0.0	7.0	11.5	7.7	3/15/2025 18:00	5.5	20.6	0.0	7.3	11.3	1.5	9.5
3/15/2025 18:15	7.0	78.1	0.0	7.4	11.1	43.5	3/15/2025 18:15	5.6	20.4	0.0	7.3	11.3	1.7	9.7
3/15/2025 18:30	7.0	76.8	0.0	7.5	11.1	13.8	3/15/2025 18:30	5.6	20.0	0.0	7.3	11.3	0.9	8.9
3/15/2025 18:45	5.6	27.4	0.0	7.1	11.5	15.3	3/15/2025 18:45	5.6	17.8	0.0	7.3	11.2	0.9	8.9
3/15/2025 19:00	5.4	25.3	0.0	6.9	11.5	8.3	3/15/2025 19:00	5.6	19.5	0.0	7.3	11.3	2.4	10.4
3/15/2025 19:15	7.0	74.4	0.0	7.4	11.1	28.3	3/15/2025 19:15	5.6	17.4	0.0	7.2	11.3	2.4	10.4
3/15/2025 19:30	6.8	66.8	0.0	7.4	11.2	23.6	3/15/2025 19:30	5.6	19.0	0.0	7.3	11.2	1.4	9.4
3/15/2025 19:45	5.7	26.9	0.0	7.1	11.5	15.9	3/15/2025 19:45	5.6	18.9	0.0	7.2	11.2	0.7	8.7
3/15/2025 20:00	5.4	24.2	0.0	6.9	11.5	3.2	3/15/2025 20:00	5.6	18.5	0.0	7.2	11.2	1.2	9.2
3/15/2025 20:15	7.0	74.8	0.0	7.4	11.1	16.5	3/15/2025 20:15	5.6	17.0	0.0	7.2	11.2	0.6	8.6
3/15/2025 20:30	7.0	75.0	0.0	7.4	11.1	25.4	3/15/2025 20:30	5.6	18.6	0.0	7.2	11.2	0.2	8.2
3/15/2025 20:45	6.0	35.6	0.0	7.2	11.3	22.9	3/15/2025 20:45	5.6	18.7	0.0	7.3	11.2	1.9	9.9
3/15/2025 21:00	5.5	24.3	0.0	6.9	11.5	3.5	3/15/2025 21:00	5.6	18.6	0.0	7.3	11.2	1.0	9.0
3/15/2025 21:15	7.0	76.5	0.0	7.4	11.1	21.3	3/15/2025 21:15	5.6	18.2	0.0	7.2	11.2	0.0	8.0
3/15/2025 21:30	7.0	75.0	0.0	7.4	11.1	21.2	3/15/2025 21:30	5.6	18.2	0.0	7.2	11.2	0.3	8.3
3/15/2025 21:45	5.7	25.1	0.0	7.0	11.5	10.2	3/15/2025 21:45	5.6	17.8	0.0	7.2	11.2	0.7	8.7
3/15/2025 22:00	5.5	23.3	0.0	6.9	11.5	1.8	3/15/2025 22:00	5.6	16.0	0.0	7.2	11.2	0.1	8.1
3/15/2025 22:15	7.0	75.8	0.0	7.4	11.1	31.1	3/15/2025 22:15	5.6	17.8	0.0	7.1	11.2	0.4	8.4
3/15/2025 22:30	7.1	74.2	0.0	7.4	11.1	4.6	3/15/2025 22:30	5.7	17.3	0.0	7.2	11.2	0.2	8.2
3/15/2025 22:45	5.6	24.2	0.0	7.0	11.4	13.5	3/15/2025 22:45	5.7	17.5	0.0	7.2	11.2	0.1	8.1
3/15/2025 23:00	6.3	63.1	0.0	7.1	11.4	5.9	3/15/2025 23:00	5.6	17.1	0.0	7.2	11.2	0.1	8.1
3/15/2025 23:15	7.1	77.2	0.0	7.4	11.1	50.7	3/15/2025 23:15	5.6	15.3	0.0	7.2	11.2	0.1	8.1
3/15/2025 23:30	7.1	75.5	0.0	7.5	11.0	10.3	3/15/2025 23:30	5.6	16.9	0.0	7.2	11.2	0.4	8.4
3/15/2025 23:45	5.6	22.7	0.0	6.9	11.5	9.9	3/15/2025 23:45	5.6	16.8	0.0	7.2	11.2	0.0	8.0
3/16/2025 0:00	7.0	75.7	0.0	7.4	11.1	20.0	3/16/2025 0:00	5.6	16.3	0.0	7.2	11.2	0.4	8.4
3/16/2025 0:15	7.1	75.6	0.0	7.4	11.1	40.4	3/16/2025 0:15	5.6	16.6	0.0	7.2	11.2	0.0	8.0
3/16/2025 0:30	5.7	23.3	0.0	7.0	11.4	5.2	3/16/2025 0:30	5.6	16.4	0.0	7.2	11.2	2.3	10.3
3/16/2025 0:45	6.3	63.9	0.0	7.1	11.4	7.7	3/16/2025 0:45	5.6	14.6	0.0	7.1	11.2	0.0	8.0
3/16/2025 1:00	7.1	73.9	0.0	7.4	11.0	36.4	3/16/2025 1:00	5.6	16.3	0.0	7.1	11.2	0.0	8.0
3/16/2025 1:15	7.1	73.9	0.0	7.5	11.1	28.3	3/16/2025 1:15	5.6	16.3	0.0	7.2	11.2	0.2	8.2
3/16/2025 1:30	6.0	31.3	0.0	7.2	11.3	26.0	3/16/2025 1:30	5.6	16.3	0.0	7.2	11.2	0.1	8.1
3/16/2025 1:45	5.5	21.9	0.0	6.9	11.5	1.8	3/16/2025 1:45	5.6	15.9	0.0	7.2	11.2	0.1	8.1
3/16/2025 2:00	5.7	29.2	0.0	7.0	11.4	5.8	3/16/2025 2:00		16.1	0.0	7.2	11.2	0.4	8.4
3/16/2025 2:15	5.6	22.3	0.0	6.9	11.5	4.7	3/16/2025 2:15	5.6	16.0	0.0	7.2	11.2	0.0	8.0
3/16/2025 2:30	5.5	21.2	0.0	6.9	11.5	2.3	3/16/2025 2:30	5.6	16.2	0.0	7.2	11.2	0.0	8.0
3/16/2025 2:45	5.6	23.6	0.0	6.9	11.5	1.8	3/16/2025 2:45	5.6	16.0	0.0	7.2	11.2	0.0	8.0
3/16/2025 3:00	7.0	75.8	0.0	7.4	11.1	33.3	3/16/2025 3:00	5.6	16.3	0.0	7.2	11.2	1.6	9.6
3/16/2025 3:15	7.0	75.6	0.0	7.4	11.1	19.7	3/16/2025 3:15	5.6	16.3	0.0	7.2	11.2	0.1	8.1
3/16/2025 3:30	5.6	22.3	0.0	7.0	11.4	15.7	3/16/2025 3:30	5.6	16.8	0.0	7.2	11.2	0.2	8.2
3/16/2025 3:45	6.1	60.5	0.0	7.0	11.5	10.5	3/16/2025 3:45	5.6	18.0	0.0	7.2	11.2	0.3	8.3
3/16/2025 4:00	7.0	75.1	0.0	7.4	11.1	9.8	3/16/2025 4:00	5.6	18.7	0.0	7.2	11.2	0.7	8.7
3/16/2025 4:15	6.9	72.3	0.0	7.4	11.1	26.9	3/16/2025 4:15	5.5	19.5	0.0	7.3	11.2	4.6	12.6
3/16/2025 4:30	5.5	25.2	0.0	7.0	11.5	7.3	3/16/2025 4:30	5.4	33.0	0.0	7.9	11.3	99.5	104.5
3/16/2025 4:45	5.3	37.7	0.0	7.2	11.6	125.4	3/16/2025 4:45	5.4	29.5	0.0	7.7	11.3	52.0	57.0
3/16/2025 5:00	6.7	78.6	0.0	7.4	11.2	66.6	3/16/2025 5:00	5.4	28.3	0.0	7.5	11.3	19.1	24.1
3/16/2025 5:15	6.7	78.2	0.0	7.5	11.2	41.0	3/16/2025 5:15	5.4	28.2	0.0	7.5	11.3	5.4	13.4
3/16/2025 5:30	6.7	74.9	0.0	7.5	11.2	21.4	3/16/2025 5:30	5.4	28.5	0.0	7.5	11.3	5.0	13.0
3/16/2025 5:45	5.3	33.7	0.0	7.1	11.6	12.7	3/16/2025 5:45	5.4	28.1	0.0	7.5	11.3	4.8	12.8
3/16/2025 6:00	6.6	74.9	0.0	7.4	11.2	26.2	3/16/2025 6:00	5.4	27.8	0.0	7.5	11.3	4.0	12.0
3/16/2025 6:15	6.6	72.5	0.0	7.4	11.2	22.9	3/16/2025 6:15	5.3	30.5	0.0	7.5	11.4	20.0	25.0
3/16/2025 6:30	6.5	73.3	0.0	7.4	11.2	25.5	3/16/2025 6:30	5.3	32.3	0.0	7.7	11.4	44.7	49.7
3/16/2025 6:45	5.3	40.9	0.0	7.2	11.5	51.4	3/16/2025 6:45	5.3	33.5	0.0	7.6	11.4	17.5	22.5
3/16/2025 7:00	5.2	38.5	0.0	7.1	11.6	19.7	3/16/2025 7:00	5.3	33.9	0.0	7.6	11.4	6.0	14.0
3/16/2025 7:15	6.5	75.2	0.0	7.4	11.2	15.9	3/16/2025 7:15	5.3	31.5	0.0	7.5	11.4	3.9	11.9
3/16/2025 7:30	6.5	73.8	0.0	7.4	11.2	13.1	3/16/2025 7:30	5.3	30.6	0.0	7.5	11.4	4.9	12.9
3/16/2025 7:45	6.6	76.3	0.0	7.4	11.2	10.1	3/16/2025 7:45	5.3	28.6	0.0	7.5	11.4	3.7	11.7
3/16/2025 8:00	5.3	34.7	0.0	7.1	11.5	20.0	3/16/2025 8:00	5.3	27.2	0.0	7.4	11.4	4.9	12.9
3/16/2025 8:15	5.2	32.5	0.0	7.0	11.6	9.4	3/16/2025 8:15	5.3	26.0	0.0	7.4	11.4	2.6	10.6
3/16/2025 8:30	6.5	73.6	0.0	7.4	11.2	16.9	3/16/2025 8:30	5.3	25.5	0.0	7.4	11.4	2.4	10.4
3/16/2025 8:45	6.6	73.3	0.0	7.4	11.2	17.4	3/16/2025 8:45	5.3	23.8	0.0	7.4	11.4	2.0	10.0
3/16/2025 9:00	6.6	72.6	0.0	7.4	11.2	24.7	3/16/2025 9:00		21.0	0.0	7.4	11.4	3.3	11.3
3/16/2025 9:15	5.3	28.9	0.0	7.0	11.6	9.7	3/16/2025 9:15	5.3	22.1	0.0	7.3	11.4	5.0	13.0
3/16/2025 9:30	5.2	28.8	0.0	7.0	11.6	4.5	3/16/2025 9:30	5.3	21.5	0.0	7.3	11.4	4.9	12.9
3/16/2025 9:45	6.6	71.7	0.0	7.4	11.2	13.1	3/16/2025 9:45	5.4	18.9	0.0	7.2	11.4	1.2	9.2
3/16/2025 10:00	6.6	71.2	0.0	7.4	11.2	37.6	3/16/2025 10:00	5.4	21.3	0.0	7.3	11.4	2.2	10.2
3/16/2025 10:15	6.7	70.5	0.0	7.4	11.2	20.2	3/16/2025 10:15	5.4	18.7	0.0	7.3	11.4	1.6	9.6
3/16/2025 10:30	5.3	26.3	0.0	7.0	11.5	11.4	3/16/2025 10:30	5.4	20.8	0.0	7.3	11.4	4.1	12.1
3/16/2025 10:45	6.5	67.6	0.0	7.3	11.3	8.6	3/16/2025 10:45	5.6	20.5	0.0	7.3	11.3	1.2	9.2
3/16/2025 11:00	6.8	68.3	0.0	7.4	11.2	26.2	3/16/2025 11:00	5.7	20.9	0.0	7.3	11.3	2.3	10.3
3/16/2025 11:15	6.9	69.5	0.0	7.4	11.1	14.0	3/16/2025 11:15	5.7	18.5	0.0	7.3	11.3	0.6	8.6
3/16/2025 11:30	6.0	30.3	0.0	7.2	11.3	5.8	3/16/2025 11:30	5.8	20.1	0.0	7.3	11.3	1.9	9.9
3/16/2025 11:45	5.8	25.2	0.0	7.0	11.4	7.2	3/16/2025 11:45	5.9	17.7	0.0	7.3	11.2	1.4	9.4
3/16/2025 12:00	7.0	68.5	0.0	7.4	11.1	17.4	3/16/2025 12:00	5.9	19.5	0.0	7.2	11.2	1.1	9.1
3/16/2025 12:15	7.1	69.4	0.0	7.4	11.1	28.4	3/16/2025 12:15	5.9	19.1	0.0	7.3	11.2	2.8	10.8
3/16/2025 12:30	7.1	68.5	0.0	7.4	11.1	17.2	3/16/2025 12:30	5.9	19.5	0.0	7.3	11.2	1.1	9.1
3/16/2025 12:45	5.9	24.7	0.0	6.9	11.4	14.2	3/16/2025 12:45	6.0	19.8	0.0	7.3	11.2	1.4	9.4
3/16/2025 13:00	6.5	53.9	0.0	7.2	11.3	12.7	3/16/2025 13:00	6.1	19.1	0.0	7.2	11.2	2.7	10.7
3/16/2025 13:15	7.3	68.8	0.0	7.4	11.0	48.0	3/16/2025 13:15	6.1	17.0	0.0	7.3	11.2	0.7	8.7
3/16/2025 13:30	7.3	69.1	0.0	7.4	11.0	29.1	3/16/2025 13:30	6.2	18.3	0.0	7.2	11.2	3.8	11.8
3/16/2025 13:45	6.3	25.2	0.0	7.1	11.3	4.3	3/16/2025 13:45	6.2	18.2	0.0	7.2	11.2	1.9	9.9
3/16/2025 14:00	6.1	23.2	0.0	6.9	11.3	4.6	3/16/2025 14:00	6.2	17.9	0.0	7.2	11.2	0.2	8.2
3/16/2025 14:15	7.2	69.5	0.0	7.4	11.1	18.0	3/16/2025 14:15	6.1	16.0	0.0	7.2	11.1	1.5	9.5
3/16/2025 14:30	7.2	69.0	0.0	7.4	11.0	19.5	3/16/2025 14:30	6.1	18.9	0.0	7.3	11.2	0.6	8.6
3/16/2025 14:45	7.2	69.6	0.0	7.4	11.1	18.3	3/16/2025 14:45	6.1	19.9	0.0	7.3	11.2	0.5	8.5
3/16/2025 15:00	6.0	24.9	0.0	7.0	11.4	3.8	3/16/2025 15:00	6.1	18.9	0.0	7.3	11.2	2.3	10.3
3/16/2025 15:15	6.8	61.3	0.0	7.3	11.2	15.0	3/16/2025 15:15	6.1	19.2	0.0	7.3	11.2	0.3	8.3
3/16/2025 15:30	7.2	70.1	0.0	7.4	11.0	20.6	3/16/2025 15:30	6.1	18.8	0.0	7.3	11.2	0.7	8.7
3/16/2025 15:45	7.3	71.1	0.0	7.5	11.1	30.2	3/16/2025 15:45	6.2	17.0	0.0	7.2	11.2	0.3	8.3
3/16/2025 16:00	6.4	28.3	0.0	7.2	11.2	19.0	3/16/2025 16:00	6.2	18.7	0.0	7.3	11.2	0.9	8.9
3/16/2025 16:15	6.1	23.8	0.0	7.0	11.4	2.9	3/16/2025 16:15	6.2	16.6	0.0	7.3	11.1	0.3	8.3
3/16/2025 16:30	6.1	23.4	0.0	6.9	11.4	3.7	3/16/2025 16:30	6.2	18.4	0.0	7.2	11.1	1.1	9.1
3/16/2025 16:45	7.3	69.7	0.0	7.4	11.1	11.5	3/16/2025 16:45	6.2	18.2	0.0	7.2	11.2	2.3	10.3
3/16/2025 17:00	7.3	69.1	0.0	7.4	11.0	21.2	3/16/2025 17:00	6.2	18.2	0.0	7.2	11.1	0.2	8.2
3/16/2025 17:15	7.3	68.6	0.0	7.4	11.0	25.5	3/16/2025 17:15	6.1	17.8	0.0	7.3	11.1	0.4	8.4
3/16/2025 17:30	7.2	67.7	0.0	7.4	11.0	14.9	3/16/2025 17:30	6.1	18.0	0.0	7.2	11.1	1.2	9.2
3/16/2025 17:45	6.1	23.3	0.0	6.9	11.4	16.9	3/16/2025 17:45	6.1	18.6	0.0	7.2	11.2	0.6	8.6
3/16/2025 18:00	6.6	49.3	0.0	7.2	11.2	5.5	3/16/2025 18:00	6.1	17.0	0.0	7.3	11.2	0.4	8.4
3/16/2025 18:15	7.2	71.1	0.0	7.4	11.1	20.4	3/16/2025 18:15	6.1	18.5	0.0	7.2	11.1	0.3	8.3
3/16/2025 18:30	7.2	71.6	0.0	7.4	11.0	15.9	3/16/2025 18:30	6.1	18.0	0.0	7.2	11.2	2.1	10.1
3/16/2025 18:45	7.2	70.6	0.0	7.4	11.1	20.2	3/16/2025 18:45	6.0	18.2	0.0	7.2	11.1	3.7	11.7
3/16/2025 19:00	6.0	24.3	0.0	7.0	11.4	12.2	3/16/2025 19:00	6.0	18.3	0.0	7.2	11.2	3.4	11.4
3/16/2025 19:15	5.9	23.6	0.0	6.9	11.4	6.7	3/16/2025 19:15	6.0	18.6	0.0	7.2	11.1	4.6	12.6
3/16/2025 19:30	7.1	71.7	0.0	7.4	11.1	20.1	3/16/2025 19:30	6.0	18.1	0.0	7.2	11.2	1.7	9.7
3/16/2025 19:45	7.1	71.1	0.0	7.4	11.1	16.7	3/16/2025 19:45	6.0	17.8	0.0	7.3	11.2	1.4	9.4
3/16/2025 20:00	7.1	72.6	0.0	7.4	11.1	20.3	3/16/2025 20:00	5.9	19.8	0.0	7.3	11.2	0.4	8.4
3/16/2025 20:15	5.9	25.8	0.0	7.0	11.4	8.6	3/16/2025 20:15	5.9	19.2	0.0	7.2	11.2	0.8	8.8
3/16/2025 20:30	5.8	24.2	0.0	7.0	11.5	3.9	3/16/2025 20:30	5.9	19.9	0.0	7.3	11.2	1.1	9.1
3/16/2025 20:45	6.9	73.0	0.0	7.3	11.2	13.1	3/16/2025 20:45	5.9	22.3	0.0	7.3	11.2	1.7	9.7
3/16/2025 21:00	7.0	73.7	0.0	7.4	11.1	15.1	3/16/2025 21:00	5.9	22.1	0.0	7.4	11.2	0.5	8.5
3/16/2025 21:15	7.1	74.3	0.0	7.4	11.1	19.0	3/16/2025 21:15	5.9	20.2	0.0	7.3	11.2	1.6	9.6
3/16/2025 21:30	7.0	67.4	0.0	7.5	11.1	13.4	3/16/2025 21:30	5.9	22.1	0.0	7.3	11.2	0.9	8.9
3/16/2025 21:45	5.8	27.0	0.0	7.0	11.5	4.6	3/16/2025 21:45	5.9	22.5	0.0	7.3	11.2	1.3	9.3
3/16/2025 22:00	6.9	72.3	0.0	7.3	11.2	12.7	3/16/2025 22:00	5.9	21.5	0.0	7.3	11.2	1.6	9.6
3/16/2025 22:15	7.1	74.3	0.0	7.3	11.1	11.4	3/16/2025 22:15	5.9	21.5	0.0	7.3	11.2	1.3	9.3
3/16/2025 22:30	7.1	72.1	0.0	7.4	11.1	23.8	3/16/2025 22:30	5.9	21.0	0.0	7.3	11.2	0.7	8.7
3/16/2025 22:45	6.0	28.8	0.0	7.1	11.4	12.9	3/16/2025 22:45	5.9	20.9	0.0	7.3	11.2	1.4	9.4
3/16/2025 23:00	5.8	25.7	0.0	7.0	11.5	3.8	3/16/2025 23:00	5.9	20.4	0.0	7.3	11.2	0.7	8.7
3/16/2025 23:15	6.7	55.1	0.0	7.4	11.2	12.4	3/16/2025 23:15	5.9	18.2	0.0	7.3	11.2	2.3	10.3
3/16/2025 23:30	6.8	68.8	0.0	7.3	11.3	13.5	3/16/2025 23:30	5.9	19.6	0.0	7.2	11.2	0.9	8.9
3/16/2025 23:45	7.1	74.9	0.0	7.3	11.1	12.1	3/16/2025 23:45	5.9	19.7	0.0	7.3	11.2	3.0	11.0