Eagle Mountain - Woodfibre Gas Pipeline Project

BCER Waste Discharge Permit Weekly Report

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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	2025-01-20	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	2025-01-20	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 tunneling at WLNG.
- The in-situ pH was outside the range of the short-term BCWQG for MAL. However, the QP indicated this was likely due to inaccuracy of the device. The pH measured with another device was 7.28. The WTP PLC displayed pH of 7.1.

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	2025-01-20	Yes-Appendix C	351m^3
Woodfibre	2025-01-21	Yes-Appendix C*lab sample day	471m^3
Woodfibre	2025-01-22	Yes-Appendix C	487m^3
Woodfibre	2025-01-23	Yes-Appendix C	454m^3
Woodfibre	2025-01-24	Yes-Appendix C	456m^3
Woodfibre	2025-01-25	Yes-Appendix C	453m^3
Woodfibre	2025-01-26	Yes-Appendix C	573m^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	2025-01-21	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	2025-01-21	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	Reviewed and signed off by:	Farshad Shafiei RPBio 3781 CAB		Farshad Shafiei Ph.D., R.P.Bio.	SQU US1 (Upstream)	SQU DS1 (Downstream)	Sample or value notes	BCWQ FAL - Short Term	BCWQ FAL - Long Term	BCWQ MAL - Short Term	BCWQ MAL - Long Term
	LAB ID					VA25A1262-001	VA25A1262-002					
	Date Sampled					20-Jan-2025	20-Jan-2025					
	Time Sampled					10:53	12:25					
Analyte	Units	FAL-ST [1,2]	FAL-LT [1,2]	MAL-ST [1]	MAL-LT [1,2]	Water	Water					
						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	7.27	7.27		If natural pH < 6.5, no statisticaly 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]	-	2.3	2.2		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 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	
Conductivity (field)	µS/cm	-	-	-	-	91	88					
Turbidity (field)	NTU	Varies with background, see note Guideline = 9.87	Varies with background, see note Guideline = 3.93 5-week discrete sampling average = 2.7 (DS)	Varies with background, see note Guideline = 9.87	Varies with background, see note Guideline = 3.93 5-week discrete sampling average = 2.7 (DS)	1.87	5.61		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	13.87	12.31		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	-	-	-	-	23.9	24					
Total Dissolved Solids	mg/L	-	-	-	-	60	62					
Total Suspended Solids	mg/L	Varies with background, see note Guideline = 28.2	Varies with background, see note Guideline = 8.0 5-week discrete sampling average = 3.42 (DS)	Varies with background, see note Guideline = 28.2	Varies with background, see note Guideline = 8.0 5-week discrete sampling average = 3.42 (DS)	3.2	< 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 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	-	-	-	-	1.39	1.4			Long-term (30-day) median within 20% of background median [3]		
Total Alkalinity ($CaCO_3$)	mg/L	-	Categorical	-	-	20	19.7			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 = 17.5	Varies with pH and temperature. See note. Guideline = 1.97	Varies with pH and temperature. See note. Guideline = 121	Varies with pH, temperature and salinity. See note. Guideline = 18	0.07	0.0698		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	5.91	6.46				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 = 0.759	-	1.5	-	0.026	0.029		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	0.284	0.294					
Nitrite (as N)	mg/L	Varies with chloride. See note. Guideline = 0.18	Varies with chloride. See note. Guideline = 0.06	-	-	0.005	0.0055		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	-	-	-	-	0.42	0.421					
Total Phosphorous	mg/L	-	0.005 to 0.015	-	-	0.0736	0.076			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	-	-	7.84	7.87			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 = 0.078 5-week field average = 0.10 (US), 0.11 (DS)	-	-	0.0459	0.0455			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) + (-0.284 * (LN(hardness) * pH))-9.898)/3/1000) 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	0.00018	0.00019					Interim guideline status
Barium (Ba)-Total	mg/L	-	1	-	-	0.0103	0.0109			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	0.017	0.018					
Cadmium (Cd)-Total	mg/L	-	-	-	0.00012	0.0000056	0.000007					Working guideline status
Calcium (Ca)-Total	mg/L	-	-	-	-	7.69	7.71					
Cesium (Cs)-Total	mg/L	-	-	-	-	0.000032	0.00003					
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	-	-	0.00014	0.00014					
Copper (Cu)-Total	mg/L	-	-	0.003	0.0014 5-week field average = 0.00085 (US), 0.00089 (DS)	0.00068	0.00064					
Iron (Fe)-Total	mg/L	1	-	-	-	0.332	0.33					
Lead (Pb)-Total	mg/L	-	-	0.14	0.002 5-week field average = 0.00005 (US), 0.00006 (DS)	< 0.000050	< 0.000050					
Lithium (Li)-Total	mg/L	-	-	-	-	0.0022	0.0023					
Magnesium (Mg)-Total	mg/L	-	-	-	-	1.14	1.16					
Manganese (Mn)-Total	mg/L	Varies with hardness Guideline = 0.715	Varies with hardness Guideline = 0.768	-	-	0.0208	0.022		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/[MeHg/totalHg]. When MeHg ≤ 0.5% of total Hg, guideline is equal to 0.02 mg/L		
Molybdenum (Mo)-Total	mg/L	46	7.6	-	-	0.000629	0.000606					
Nickel (Ni)-Total	mg/L	-	-	-	0.0083	< 0.00050	< 0.00050					Working guideline status
Phosphorus (P)-Total	mg/L	-	0.005 to 0.015	-	-	0.09	0.096			Guideline only applies to lakes with salmonid species being the dominant fish species. Guideline is for reference only and does not apply to site.		
Potassium (K)-Total	mg/L	-	-	-	-	1.23	1.27					
Rubidium (Rb)-Total	mg/L	-	-	-	-	0.00177	0.00178					
Selenium (Se)-Total	mg/L	-	0.002	-	0.002	< 0.00005	< 0.000050			Guideline for freshwater aquatic life (water column). Alert concentration is 0.001 mg/L, with separate guidelienes for sediment, invertebrate and fish tissue. Refer to BC Water Quality Guidelines for more information on guidelienes and sampling guidance.		Guideline for marine aquatic life (water column). Alert concentration is 0.001 mg/L, with separate guidelienes for sediment, invertebrate and fish tissue. Refer to BC Water Quality Guidelines for
Silicon (Si)-Total	mg/L	-	-	-	-	6.53	6.63					
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), 0.000016 (DS)	0.003	0.0015	< 0.000010	0.000022		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	-	-	-	-	5.03	5.3					
Strontium (Sr)-Total	mg/L	-	-	-	-	0.054	0.0563					
Sulfur (S)-Total	mg/L	-	-	-	-	2.57	2.37					
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 tnhe 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	-	-	-	-	0.00104	0.00098					
Tungsten (W)-Total	mg/L	-	-	-	-	< 0.00010	< 0.00010					
Uranium (U)-Total	mg/L	0.0165	0.0075	-	-	0.000034	0.000036			Working guideline status		
Vanadium (V)-Total	mg/L	-	0.06	-	0.005 5-week field average = 0.00127 (US), 0.00117 (DS)	0.0015	0.00143					Working guideline status
Zinc (Zn)-Total	mg/L	-	-	0.055	Guideline = 0.010 5-week field average = < 0.0055 (US), 0.780 (DS)	< 0.0030	< 0.0030					
Zirconium (Zr)-Total	mg/L	-	-	-	-	< 0.00020	< 0.00020					
Dissolved Metals												
Aluminum (Al)-Dissolved	mg/L	-	-	-	-	0.0168	0.0168					
Antimony (Sb)-Dissolved	mg/L	-	-	-	-	< 0.00010	< 0.00010					
Arsenic (As)-Dissolved	mg/L	-	-	-	-	0.00018	0.00017					
Barium (Ba)-Dissolved	mg/L	-	-	-	-	0.00984	0.00976					
Beryllium (Be)-Dissolved	mg/L	-	-	-	-	< 0.000100	< 0.000100					
Bismuth (Bi)-Dissolved	mg/L	-	-	-	-	< 0.000050	< 0.000050					
Boron (B)-Dissolved	mg/L	-	-	-	-	0.019	0.017					
Cadmium (Cd)-Dissolved	mg/L	Varies with hardness, see note Guideline = 0.000135	Varies with hardness, see note Guideline = 0.000065	-	-	0.0000066	0.0000053		Guideline is hardness dependent. Guideline is appilcable to water hardness between 7.0 and 455 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 285 mg/L. Guideline is calculated with the following formula: Guideline = (EXP(0.736 * (LN(hardness)) - 4.943)/1000) Lowest value for guiedeline 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	-	-	7.96	7.53			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	-	-	-	-	0.000034	0.000031					
Chromium (Cr)-Dissolved	mg/L	-	-	-	-	< 0.00050	< 0.00050					
Cobalt (Co)-Dissolved	mg/L	-	-	-	-	0.00012	0.00013					
Copper (Cu)-Dissolved	mg/L	Guideline varies with other parameters, see note Guideline = 0.0018	Guideline varies with other parameters, see note Guideline = 0.0003 5-week field average = 0.00069 (US), 0.00065 (DS)	-	-	0.00047	0.00049		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	-	-	-	0.222	0.223					
Lead (Pb)-Dissolved	mg/L	-	Guideline varies with DOC and hardness Guideline = 0.002 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))/2/1000 where DOC range is 0.5-31.5 mg/L and hardness range is 4.7-511 mg/L.		
Lithium (Li)-Dissolved	mg/L	-	-	-	-	0.0023	0.0022					
Magnesium (Mg)-Dissolved	mg/L	-	-	-	-	1.12	1.16					
Manganese (Mn)-Dissolved	mg/L	-	-	-	-	0.0191	0.0208					
Mercury (Hg)-Dissolved	mg/L	-	-	-	-	< 0.0000050	< 0.0000050					
Molybdenum (Mo)-Dissolved	mg/L	-	-	-	-	0.00064	0.000585					
Nickel (Ni)-Dissolved	mg/L	Guideline varies with other parameters, see note Guideline = 0.0169	Guideline varies with other parameters, see note Guideline = 0.001085 5-week field average = < 0.0005 (US), < 0.0005 (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	-	-	-	-	0.081	0.064					
Potassium (K)-Dissolved	mg/L	-	-	-	-	1.19	1.28					
Rubidium (Rb)-Dissolved	mg/L	-	-	-	-	0.00171	0.00164					
Selenium (Se)-Dissolved	mg/L	-	-	-	-	0.00007	< 0.000050					
Silicon (Si)-Dissolved	mg/L	-	-	-	-	6.69	6.35					
Silver (Ag)-Dissolved	mg/L	-	-	-	-	< 0.000010	< 0.000010					
Sodium (Na)-Dissolved	mg/L	-	-	-	-	4.77	5.24					
Strontium (Sr)-Dissolved	mg/L	-	-	-	-	0.0571	0.0567					
Sulfur (S)-Dissolved	mg/L	-	-	-	-	2.43	2.13					
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	-	-	-	-	0.000036	0.000029					
Vanadium (V)-Dissolved	mg/L	-	-	-	-	0.0013	0.00122					
Zinc (Zn)-Dissolved	mg/L	Varies with DOC and hardness Guideline = 0.013	Varies with pH, DOC, hardness Guideline = 0.0037 5-week field average = 0.0042 (US), 0.714 (DS)	-	-	0.0024	0.0024		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)/2/1000) 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)/2/1000) Guideline only applies to water with pH between 6.5 and 8.13, DOC between 0.3 and 22.9 mg/L, anmd 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 Qualtiy Guidelines for the Protection of Aquatic Life, Wildlife & Agriculture. Accessed from:
wqg_summary_aquaticlife_wildlife_agri.pdf (gov.bc.ca)

[2]BC MOECCS. 2021. BC Working Water Qualtiy Guidelines for the Protection of Aquatic Life, Widlife & 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.

[4]Background temperature ranges: Dec-Feb: 2.0-4.0C; Mar-Apr: 4.0-6.0C; 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)	SQU DS1 (Downstream)
pH (field)	pH units	Field pH taken using handheld meters during sampling used in calculations	7.27	7.27
Temperature (field)	°C	Field temperature taken using handheld meters during sampling used in calculations	2.3	2.2
Turbidity (field)	NTU	Field turbidity taken using handheld meters during sampling used in calculations	1.87	5.61
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	23.9	24
Dissolved Organic Carbon (DOC)	mg/L	Laboratory tested dissolved organic carbon tested at the lab used in guideline calculations	1.39	1.4
Total Alkalinity ($CaCO_3$)	mg/L	Laboratory tested total alkalinity used in calculations	20	19.7
Chloride	mg/L	Laboratory tested chloride taken at each respective sample site on the day of sampling used in guideline calculations	5.91	6.46

BCR Site Receiving Environment Lab Documentation

CERTIFICATE OF ANALYSIS

Work Order	:	**VA25A1262**		
Client	:	**Triton Environmental Consultants Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact	:		Account Manager	
Address	:		Address	
Telephone	:		Telephone	
Project	:	11964	Date Samples Received	: 20-Jan-2025 17:15
PO	:	11964 - Task 20 - Phase 3C-4C	Date Analysis Commenced	: 21-Jan-2025
C-O-C number	:	----	Issue Date	: 28-Jan-2025 08:23
Sampler	:	----		
Site	:	Water Analysis		
Quote number	:	VA25-TRIT100-001		
No. of samples received	:	3		
No. of samples analysed	:	3		

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*
		Inorganics, Burnaby, British Columbia
		Metals, 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
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	Trip Blank	----	----
					Client sampling date / time	20-Jan-2025 10:53	20-Jan-2025 12:25	20-Jan-2025 10:50	----	----
						VA25A1262-001	VA25A1262-002	VA25A1262-003	----	----
						Result	Result	Result	----	----
Field Tests										
Conductivity, field	----	EF001/VA	0.10	µS/cm		91.000	88.000	----	----	----
pH, field	----	EF001/VA	0.10	pH units		7.27	7.27	----	----	----
Temperature, field	----	EF001/VA	0.10	°C		2.30	2.20	----	----	----
Physical Tests										
Hardness (as CaCO3), dissolved	----	EC100/VA	0.60	mg/L		24.5	23.6	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/VA	0.60	mg/L		23.9	24.0	<0.60	----	----
Solids, total dissolved [TDS]	----	E162/VA	10	mg/L		60	62	<10	----	----
Solids, total suspended [TSS]	----	E160/VA	3.0	mg/L		3.2	<3.0	<3.0	----	----
Alkalinity, total (as CaCO3)	----	E290/VA	2.0	mg/L		20.0	19.7	<2.0	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L		0.0700	0.0698	<0.0050	----	----
Bromide	24959-67-9	E235.Br-L/VA	0.050	mg/L		<0.050	<0.050	<0.050	----	----
Chloride	16887-00-6	E235.Cl/VA	0.50	mg/L		5.91	6.46	<0.50	----	----
Fluoride	16984-48-8	E235.F/VA	0.020	mg/L		0.026	0.029	<0.020	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/VA	0.0050	mg/L		0.284	0.294	<0.0050	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/VA	0.0010	mg/L		0.0050	0.0055	<0.0010	----	----
Nitrogen, total	7727-37-9	E366/VA	0.030	mg/L		0.420	0.421	<0.030	----	----
Phosphorus, total	7723-14-0	E372-U/VA	0.0020	mg/L		0.0736	0.0760	<0.0020	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/VA	0.30	mg/L		7.84	7.87	<0.30	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/VA	0.50	mg/L		1.39	1.40	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SQU US 1	SQU DS 1	Trip Blank	----	----
					Client sampling date / time	20-Jan-2025 10:53	20-Jan-2025 12:25	20-Jan-2025 10:50	----	----
						VA25A1262-001	VA25A1262-002	VA25A1262-003	----	----
						Result	Result	Result	----	----
Total Sulfides										
Sulfide, total (as S)	18496-25-8	E395/VA	0.0015	mg/L		<0.0015	<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	<0.0016	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/VA	0.0030	mg/L		0.0459	0.0455	<0.0030	----	----
Antimony, total	7440-36-0	E420/VA	0.00010	mg/L		<0.00010	<0.00010	<0.00010	----	----
Arsenic, total	7440-38-2	E420/VA	0.00010	mg/L		0.00018	0.00019	<0.00010	----	----
Barium, total	7440-39-3	E420/VA	0.00010	mg/L		0.0103	0.0109	<0.00010	----	----
Beryllium, total	7440-41-7	E420/VA	0.000100	mg/L		<0.000100	<0.000100	<0.000100	----	----
Bismuth, total	7440-69-9	E420/VA	0.000050	mg/L		<0.000050	<0.000050	<0.000050	----	----
Boron, total	7440-42-8	E420/VA	0.010	mg/L		0.017	0.018	<0.010	----	----
Cadmium, total	7440-43-9	E420/VA	0.0000050	mg/L		0.0000056	0.0000070	<0.0000050	----	----
Calcium, total	7440-70-2	E420/VA	0.050	mg/L		7.69	7.71	<0.050	----	----
Cesium, total	7440-46-2	E420/VA	0.000010	mg/L		0.000032	0.000030	<0.000010	----	----
Chromium, total	7440-47-3	E420/VA	0.00050	mg/L		<0.00050	<0.00050	<0.00050	----	----
Cobalt, total	7440-48-4	E420/VA	0.00010	mg/L		0.00014	0.00014	<0.00010	----	----
Copper, total	7440-50-8	E420/VA	0.00050	mg/L		0.00068	0.00064	<0.00050	----	----
Iron, total	7439-89-6	E420/VA	0.010	mg/L		0.332	0.330	<0.010	----	----
Lead, total	7439-92-1	E420/VA	0.000050	mg/L		<0.000050	<0.000050	<0.000050	----	----
Lithium, total	7439-93-2	E420/VA	0.0010	mg/L		0.0022	0.0023	<0.0010	----	----
Magnesium, total	7439-95-4	E420/VA	0.0050	mg/L		1.14	1.16	<0.0050	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SQU US 1	SQU DS 1	Trip Blank	----	----
					Client sampling date / time	20-Jan-2025 10:53	20-Jan-2025 12:25	20-Jan-2025 10:50	----	----
						VA25A1262-001	VA25A1262-002	VA25A1262-003	----	----
						Result	Result	Result	----	----
Total Metals										
Manganese, total	7439-96-5	E420/VA	0.00010	mg/L		0.0208	0.0220	<0.00010	----	----
Mercury, total	7439-97-6	E508/VA	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	----	----
Molybdenum, total	7439-98-7	E420/VA	0.000050	mg/L		0.000629	0.000606	<0.000050	----	----
Nickel, total	7440-02-0	E420/VA	0.00050	mg/L		<0.00050	<0.00050	<0.00050	----	----
Phosphorus, total	7723-14-0	E420/VA	0.050	mg/L		0.090	0.096	<0.050	----	----
Potassium, total	7440-09-7	E420/VA	0.050	mg/L		1.23	1.27	<0.050	----	----
Rubidium, total	7440-17-7	E420/VA	0.00020	mg/L		0.00177	0.00178	<0.00020	----	----
Selenium, total	7782-49-2	E420/VA	0.000050	mg/L		<0.000050	<0.000050	<0.000050	----	----
Silicon, total	7440-21-3	E420/VA	0.10	mg/L		6.53	6.63	<0.10	----	----
Silver, total	7440-22-4	E420/VA	0.000010	mg/L		<0.000010	0.000022	<0.000010	----	----
Sodium, total	7440-23-5	E420/VA	0.050	mg/L		5.03	5.30	<0.050	----	----
Strontium, total	7440-24-6	E420/VA	0.00020	mg/L		0.0540	0.0563	<0.00020	----	----
Sulfur, total	7704-34-9	E420/VA	0.50	mg/L		2.57	2.37	<0.50	----	----
Tellurium, total	13494-80-9	E420/VA	0.00020	mg/L		<0.00020	<0.00020	<0.00020	----	----
Thallium, total	7440-28-0	E420/VA	0.000010	mg/L		<0.000010	<0.000010	<0.000010	----	----
Thorium, total	7440-29-1	E420/VA	0.00010	mg/L		<0.00010	<0.00010	<0.00010	----	----
Tin, total	7440-31-5	E420/VA	0.00010	mg/L		<0.00010	<0.00010	<0.00010	----	----
Titanium, total	7440-32-6	E420/VA	0.00030	mg/L		0.00104	0.00098	<0.00030	----	----
Tungsten, total	7440-33-7	E420/VA	0.00010	mg/L		<0.00010	<0.00010	<0.00010	----	----
Uranium, total	7440-61-1	E420/VA	0.000010	mg/L		0.000034	0.000036	<0.000010	----	----
Vanadium, total	7440-62-2	E420/VA	0.00050	mg/L		0.00150	0.00143	<0.00050	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SQU US 1	SQU DS 1	Trip Blank	----	----
					Client sampling date / time	20-Jan-2025 10:53	20-Jan-2025 12:25	20-Jan-2025 10:50	----	----
						VA25A1262-001	VA25A1262-002	VA25A1262-003	----	----
						Result	Result	Result	----	----
Total Metals										
Zinc, total	7440-66-6	E420/VA	0.0030	mg/L		<0.0030	<0.0030	<0.0030	----	----
Zirconium, total	7440-67-7	E420/VA	0.00020	mg/L		<0.00020	<0.00020	<0.00020	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/VA	0.0010	mg/L		0.0168	0.0168	----	----	----
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		0.00018	0.00017	----	----	----
Barium, dissolved	7440-39-3	E421/VA	0.00010	mg/L		0.00984	0.00976	----	----	----
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		0.019	0.017	----	----	----
Cadmium, dissolved	7440-43-9	E421/VA	0.0000050	mg/L		0.0000066	0.0000053	----	----	----
Calcium, dissolved	7440-70-2	E421/VA	0.050	mg/L		7.96	7.53	----	----	----
Cesium, dissolved	7440-46-2	E421/VA	0.000010	mg/L		0.000034	0.000031	----	----	----
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		0.00012	0.00013	----	----	----
Copper, dissolved	7440-50-8	E421/VA	0.00020	mg/L		0.00047	0.00049	----	----	----
Iron, dissolved	7439-89-6	E421/VA	0.010	mg/L		0.222	0.223	----	----	----
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		0.0023	0.0022	----	----	----
Magnesium, dissolved	7439-95-4	E421/VA	0.0050	mg/L		1.12	1.16	----	----	----
Manganese, dissolved	7439-96-5	E421/VA	0.00010	mg/L		0.0191	0.0208	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SQU US 1	SQU DS 1	Trip Blank	----	----
					Client sampling date / time	20-Jan-2025 10:53	20-Jan-2025 12:25	20-Jan-2025 10:50	----	----
						VA25A1262-001	VA25A1262-002	VA25A1262-003	----	----
						Result	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		0.000640	0.000585	----	----	----
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		0.081	0.064	----	----	----
Potassium, dissolved	7440-09-7	E421/VA	0.050	mg/L		1.19	1.28	----	----	----
Rubidium, dissolved	7440-17-7	E421/VA	0.00020	mg/L		0.00171	0.00164	----	----	----
Selenium, dissolved	7782-49-2	E421/VA	0.000050	mg/L		0.000070	<0.000050	----	----	----
Silicon, dissolved	7440-21-3	E421/VA	0.050	mg/L		6.69	6.35	----	----	----
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		4.77	5.24	----	----	----
Strontium, dissolved	7440-24-6	E421/VA	0.00020	mg/L		0.0571	0.0567	----	----	----
Sulfur, dissolved	7704-34-9	E421/VA	0.50	mg/L		2.43	2.13	----	----	----
Tellurium, dissolved	13494-80-9	E421/VA	0.00020	mg/L		<0.00020	<0.00020	----	----	----
Thallium, dissolved	7440-28-0	E421/VA	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Thorium, dissolved	7440-29-1	E421/VA	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Tin, dissolved	7440-31-5	E421/VA	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Titanium, dissolved	7440-32-6	E421/VA	0.00030	mg/L		<0.00030	<0.00030	----	----	----
Tungsten, dissolved	7440-33-7	E421/VA	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Uranium, dissolved	7440-61-1	E421/VA	0.000010	mg/L		0.000036	0.000029	----	----	----
Vanadium, dissolved	7440-62-2	E421/VA	0.00050	mg/L		0.00130	0.00122	----	----	----
Zinc, dissolved	7440-66-6	E421/VA	0.0010	mg/L		0.0024	0.0024	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SQU US 1	SQU DS 1	Trip Blank	----	----
					Client sampling date / time	20-Jan-2025 10:53	20-Jan-2025 12:25	20-Jan-2025 10:50	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA25A1262-001	VA25A1262-002	VA25A1262-003	----	----
						Result	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	<0.00050	----	----
Chromium, trivalent [Cr III], total	16065-83-1	EC535/VA	0.00050	mg/L		<0.00050	<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	: **VA25A1262**	Page	: 1 of 17
Client	: **Triton Environmental Consultants Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact		Account Manager	
Address		Address	
Telephone		Telephone	
Project	: 11964	Date Samples Received	: 20-Jan-2025 17:15
PO	: 11964 - Task 20 - Phase 3C-4C	Issue Date	: 28-Jan-2025 08:23
C-O-C number	: ----		
Sampler	: ----		
Site	: Water Analysis		
Quote number	: VA25-TRIT100-001		
No. of samples received	: 3		
No. of samples analysed	: 3		

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

Key

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

Workorder Comments

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

Summary of Outliers

Outliers : Quality Control Samples

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

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

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

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Matrix Spike (MS) Recoveries								
Dissolved Metals	Anonymous	Anonymous	Silver, dissolved	7440-22-4	E421	60.8 % MES	70.0-130%	Recovery less than lower data quality objective

Result Qualifiers

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

Analysis Holding Time Compliance

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

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

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

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

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times 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	20-Jan-2025	21-Jan-2025	28 days	1 days	✓	21-Jan-2025	28 days	1 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SQU US 1	E298	20-Jan-2025	21-Jan-2025	28 days	1 days	✓	21-Jan-2025	28 days	1 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (lab preserved) Trip Blank	E298	20-Jan-2025	21-Jan-2025	3 days	1 days	✓	21-Jan-2025	28 days	0 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE SQU DS 1	E235.Br-L	20-Jan-2025	21-Jan-2025	28 days	1 days	✓	21-Jan-2025	28 days	1 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE SQU US 1	E235.Br-L	20-Jan-2025	21-Jan-2025	28 days	1 days	✓	21-Jan-2025	28 days	1 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE Trip Blank	E235.Br-L	20-Jan-2025	21-Jan-2025	28 days	1 days	✓	21-Jan-2025	28 days	1 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE SQU DS 1	E235.Cl	20-Jan-2025	21-Jan-2025	28 days	1 days	✓	21-Jan-2025	28 days	1 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC										
HDPE SQU US 1	E235.Cl	20-Jan-2025	21-Jan-2025	28 days	1 days	✓	21-Jan-2025	28 days	1 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE Trip Blank	E235.Cl	20-Jan-2025	21-Jan-2025	28 days	1 days	✓	21-Jan-2025	28 days	1 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE SQU DS 1	E235.F	20-Jan-2025	21-Jan-2025	28 days	1 days	✓	21-Jan-2025	28 days	1 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE SQU US 1	E235.F	20-Jan-2025	21-Jan-2025	28 days	1 days	✓	21-Jan-2025	28 days	1 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE Trip Blank	E235.F	20-Jan-2025	21-Jan-2025	28 days	1 days	✓	21-Jan-2025	28 days	1 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SQU DS 1	E235.NO3-L	20-Jan-2025	21-Jan-2025	3 days	1 days	✓	21-Jan-2025	3 days	1 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SQU US 1	E235.NO3-L	20-Jan-2025	21-Jan-2025	3 days	1 days	✓	21-Jan-2025	3 days	1 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE Trip Blank	E235.NO3-L	20-Jan-2025	21-Jan-2025	3 days	1 days	✓	21-Jan-2025	3 days	1 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SQU DS 1	E235.NO2-L	20-Jan-2025	21-Jan-2025	3 days	1 days	✓	21-Jan-2025	3 days	1 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SQU US 1	E235.NO2-L	20-Jan-2025	21-Jan-2025	3 days	1 days	✓	21-Jan-2025	3 days	1 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE Trip Blank	E235.NO2-L	20-Jan-2025	21-Jan-2025	3 days	1 days	✓	21-Jan-2025	3 days	1 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SQU DS 1	E235.SO4	20-Jan-2025	21-Jan-2025	28 days	1 days	✓	21-Jan-2025	28 days	1 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SQU US 1	E235.SO4	20-Jan-2025	21-Jan-2025	28 days	1 days	✓	21-Jan-2025	28 days	1 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE Trip Blank	E235.SO4	20-Jan-2025	21-Jan-2025	28 days	1 days	✓	21-Jan-2025	28 days	1 days	✓
Anions and Nutrients : Total Nitrogen by Colourimetry										
Amber glass total (sulfuric acid) SQU DS 1	E366	20-Jan-2025	21-Jan-2025	28 days	1 days	✓	23-Jan-2025	28 days	3 days	✓
Anions and Nutrients : Total Nitrogen by Colourimetry										
Amber glass total (sulfuric acid) SQU US 1	E366	20-Jan-2025	21-Jan-2025	28 days	1 days	✓	23-Jan-2025	28 days	3 days	✓
Anions and Nutrients : Total Nitrogen by Colourimetry										
Amber glass total (lab preserved) Trip Blank	E366	20-Jan-2025	21-Jan-2025	3 days	1 days	✓	23-Jan-2025	28 days	2 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SQU DS 1	E372-U	20-Jan-2025	21-Jan-2025	28 days	1 days	✓	23-Jan-2025	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times 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 US 1	E372-U	20-Jan-2025	21-Jan-2025	28 days	1 days	✓	23-Jan-2025	28 days	3 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (lab preserved)										
Trip Blank	E372-U	20-Jan-2025	21-Jan-2025	3 days	1 days	✓	23-Jan-2025	28 days	2 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial - dissolved (lab preserved)										
SQU DS 1	E509	20-Jan-2025	23-Jan-2025	28 days	3 days	✓	23-Jan-2025	28 days	3 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial - dissolved (lab preserved)										
SQU US 1	E509	20-Jan-2025	23-Jan-2025	28 days	3 days	✓	23-Jan-2025	28 days	3 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved)										
SQU DS 1	E421	20-Jan-2025	21-Jan-2025	180 days	1 days	✓	22-Jan-2025	180 days	2 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab preserved)										
SQU US 1	E421	20-Jan-2025	21-Jan-2025	180 days	1 days	✓	22-Jan-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 - total (lab preserved)										
SQU DS 1	EF001	20-Jan-2025	----	----	----		23-Jan-2025	----	3 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial - total (lab preserved)										
SQU US 1	EF001	20-Jan-2025	----	----	----		23-Jan-2025	----	3 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SQU DS 1	E358-L	20-Jan-2025	21-Jan-2025	28 days	1 days	✓	21-Jan-2025	28 days	1 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times 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 (sulfuric acid) SQU US 1	E358-L	20-Jan-2025	21-Jan-2025	28 days	1 days	✓	21-Jan-2025	28 days	1 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SQU DS 1	E290	20-Jan-2025	21-Jan-2025	14 days	1 days	✓	21-Jan-2025	14 days	1 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SQU US 1	E290	20-Jan-2025	21-Jan-2025	14 days	1 days	✓	21-Jan-2025	14 days	1 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE Trip Blank	E290	20-Jan-2025	21-Jan-2025	14 days	1 days	✓	21-Jan-2025	14 days	1 days	✓
Physical Tests : TDS by Gravimetry										
HDPE SQU DS 1	E162	20-Jan-2025	----	----	----		25-Jan-2025	7 days	5 days	✓
Physical Tests : TDS by Gravimetry										
HDPE SQU US 1	E162	20-Jan-2025	----	----	----		25-Jan-2025	7 days	5 days	✓
Physical Tests : TDS by Gravimetry										
HDPE Trip Blank	E162	20-Jan-2025	----	----	----		25-Jan-2025	7 days	5 days	✓
Physical Tests : TSS by Gravimetry										
HDPE SQU DS 1	E160	20-Jan-2025	----	----	----		25-Jan-2025	7 days	5 days	✓
Physical Tests : TSS by Gravimetry										
HDPE SQU US 1	E160	20-Jan-2025	----	----	----		25-Jan-2025	7 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : TSS by Gravimetry										
HDPE										
Trip Blank	E160	20-Jan-2025	----	----	----		25-Jan-2025	7 days	5 days	✓
Speciated Metals : Total Hexavalent Chromium (Cr VI) by IC										
Opaque HDPE - total (sodium hydroxide)										
SQU DS 1	E532	20-Jan-2025	----	----	----		22-Jan-2025	28 days	2 days	✓
Speciated Metals : Total Hexavalent Chromium (Cr VI) by IC										
Opaque HDPE - total (sodium hydroxide)										
SQU US 1	E532	20-Jan-2025	----	----	----		22-Jan-2025	28 days	2 days	✓
Speciated Metals : Total Hexavalent Chromium (Cr VI) by IC										
Opaque HDPE - total (sodium hydroxide)										
Trip Blank	E532	20-Jan-2025	----	----	----		22-Jan-2025	28 days	2 days	✓
Total Metals : Total Mercury in Water by CVAAS										
HDPE - total (lab preserved)										
Trip Blank	E508	20-Jan-2025	27-Jan-2025	0 hrs	171 hrs	× UCP	27-Jan-2025	0 hrs	171 hrs	× UCP
Total Metals : Total Mercury in Water by CVAAS										
Glass vial - total (lab preserved)										
SQU DS 1	E508	20-Jan-2025	24-Jan-2025	28 days	4 days	✓	24-Jan-2025	28 days	4 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial - total (lab preserved)										
SQU US 1	E508	20-Jan-2025	24-Jan-2025	28 days	4 days	✓	24-Jan-2025	28 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved)										
SQU DS 1	E420	20-Jan-2025	22-Jan-2025	180 days	2 days	✓	22-Jan-2025	180 days	2 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved)										
SQU US 1	E420	20-Jan-2025	22-Jan-2025	180 days	2 days	✓	22-Jan-2025	180 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
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved)										
Trip Blank	E420	20-Jan-2025	22-Jan-2025	180 days	2 days	✓	22-Jan-2025	180 days	2 days	✓
Total Sulfides : Total Sulfide by Colourimetry (Automated Flow)										
HDPE total (zinc acetate+sodium hydroxide)										
SQU DS 1	E395	20-Jan-2025	----	----	----		26-Jan-2025	7 days	6 days	✓
Total Sulfides : Total Sulfide by Colourimetry (Automated Flow)										
HDPE total (zinc acetate+sodium hydroxide)										
SQU US 1	E395	20-Jan-2025	----	----	----		26-Jan-2025	7 days	6 days	✓
Total Sulfides : Total Sulfide by Colourimetry (Automated Flow)										
HDPE total (zinc acetate+sodium hydroxide)										
Trip Blank	E395	20-Jan-2025	----	----	----		26-Jan-2025	7 days	6 days	✓

Legend & Qualifier Definitions

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

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

Quality Control Parameter Frequency Compliance

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

Matrix: **Water**

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

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Alkalinity Species by Titration	E290	1846825	1	6	16.6	5.0	✓
Ammonia by Fluorescence	E298	1846568	1	7	14.2	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	1846819	1	4	25.0	5.0	✓
Chloride in Water by IC	E235.Cl	1846818	1	8	12.5	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1848788	1	6	16.6	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1846938	1	18	5.5	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1846569	1	3	33.3	5.0	✓
Fluoride in Water by IC	E235.F	1846817	1	8	12.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1846820	1	7	14.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1846821	1	8	12.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1846822	1	8	12.5	5.0	✓
TDS by Gravimetry	E162	1851897	1	20	5.0	5.0	✓
Total Hexavalent Chromium (Cr VI) by IC	E532	1848694	1	11	9.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1850351	2	31	6.4	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1847700	1	20	5.0	5.0	✓
Total Nitrogen by Colourimetry	E366	1846570	1	3	33.3	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1846571	1	3	33.3	5.0	✓
Total Sulfide by Colourimetry (Automated Flow)	E395	1852437	1	5	20.0	5.0	✓
TSS by Gravimetry	E160	1851894	1	20	5.0	5.0	✓
Laboratory Control Samples (LCS)							
Alkalinity Species by Titration	E290	1846825	1	6	16.6	5.0	✓
Ammonia by Fluorescence	E298	1846568	1	7	14.2	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	1846819	1	4	25.0	5.0	✓
Chloride in Water by IC	E235.Cl	1846818	1	8	12.5	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1848788	1	6	16.6	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1846938	1	18	5.5	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1846569	1	3	33.3	5.0	✓
Fluoride in Water by IC	E235.F	1846817	1	8	12.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1846820	1	7	14.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1846821	1	8	12.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1846822	1	8	12.5	5.0	✓
TDS by Gravimetry	E162	1851897	1	20	5.0	5.0	✓
Total Hexavalent Chromium (Cr VI) by IC	E532	1848694	1	11	9.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1850351	2	31	6.4	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1847700	1	20	5.0	5.0	✓
Total Nitrogen by Colourimetry	E366	1846570	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	1846571	1	3	33.3	5.0	✓
Total Sulfide by Colourimetry (Automated Flow)	E395	1852437	1	5	20.0	5.0	✓
TSS by Gravimetry	E160	1851894	1	20	5.0	5.0	✓
Method Blanks (MB)							
Alkalinity Species by Titration	E290	1846825	1	6	16.6	5.0	✓
Ammonia by Fluorescence	E298	1846568	1	7	14.2	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	1846819	1	4	25.0	5.0	✓
Chloride in Water by IC	E235.Cl	1846818	1	8	12.5	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1848788	1	6	16.6	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1846938	1	18	5.5	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1846569	1	3	33.3	5.0	✓
Fluoride in Water by IC	E235.F	1846817	1	8	12.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1846820	1	7	14.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1846821	1	8	12.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1846822	1	8	12.5	5.0	✓
TDS by Gravimetry	E162	1851897	1	20	5.0	5.0	✓
Total Hexavalent Chromium (Cr VI) by IC	E532	1848694	1	11	9.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1850351	2	31	6.4	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1847700	1	20	5.0	5.0	✓
Total Nitrogen by Colourimetry	E366	1846570	1	3	33.3	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1846571	1	3	33.3	5.0	✓
Total Sulfide by Colourimetry (Automated Flow)	E395	1852437	1	5	20.0	5.0	✓
TSS by Gravimetry	E160	1851894	1	20	5.0	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1846568	1	7	14.2	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	1846819	1	4	25.0	5.0	✓
Chloride in Water by IC	E235.Cl	1846818	1	8	12.5	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1848788	1	6	16.6	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1846938	1	18	5.5	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1846569	1	3	33.3	5.0	✓
Fluoride in Water by IC	E235.F	1846817	1	8	12.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1846820	1	7	14.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1846821	1	8	12.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1846822	1	8	12.5	5.0	✓
Total Hexavalent Chromium (Cr VI) by IC	E532	1848694	1	11	9.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1850351	2	31	6.4	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1847700	1	20	5.0	5.0	✓
Total Nitrogen by Colourimetry	E366	1846570	1	3	33.3	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1846571	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*
Matrix Spikes (MS) - Continued							
Total Sulfide by Colourimetry (Automated Flow)	E395	1852437	1	5	20.0	5.0	✓

Methodology References and Summaries

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

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
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.

QUALITY CONTROL REPORT

Work Order	: **VA25A1262**	Page	: 1 of 17
Client	: Triton Environmental Consultants Ltd.	Laboratory	: ALS Environmental - Vancouver
Contact		Account Manager	
Address		Address	
Telephone	: ----	Telephone	
Project	: 11964	Date Samples Received	: 20-Jan-2025 17:15
PO	: 11964 - Task 20 - Phase 3C-4C	Date Analysis Commenced	: 21-Jan-2025
C-O-C number	: ----	Issue Date	: 28-Jan-2025 08:23
Sampler	: ----		
Site	: Water Analysis		
Quote number	: VA25-TRIT100-001		
No. of samples received	: 3		
No. of samples analysed	: 3		

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 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: 1846825)											
KS2500201-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	191	193	0.833%	20%	----
Physical Tests (QC Lot: 1851894)											
FJ2500202-002	Anonymous	Solids, total suspended [TSS]	----	E160	3.0	mg/L	12.0	11.8	0.2	Diff <2x LOR	----
Physical Tests (QC Lot: 1851897)											
FJ2500202-002	Anonymous	Solids, total dissolved [TDS]	----	E162	20	mg/L	450	456	1.43%	20%	----
Anions and Nutrients (QC Lot: 1846568)											
VA25A0915-007	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.500	mg/L	33.6	32.6	2.86%	20%	----
Anions and Nutrients (QC Lot: 1846570)											
VA25A1262-001	SQU US 1	Nitrogen, total	7727-37-9	E366	0.030	mg/L	0.420	0.411	2.28%	20%	----
Anions and Nutrients (QC Lot: 1846571)											
VA25A1262-001	SQU US 1	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0736	0.0740	0.515%	20%	----
Anions and Nutrients (QC Lot: 1846817)											
KS2500046-001	Anonymous	Fluoride	16984-48-8	E235.F	0.020	mg/L	0.052	0.050	0.002	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1846818)											
KS2500046-001	Anonymous	Chloride	16887-00-6	E235.Cl	0.50	mg/L	27.8	28.0	0.719%	20%	----
Anions and Nutrients (QC Lot: 1846819)											
KS2500046-001	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: 1846820)											
KS2500046-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	1.50	1.51	0.992%	20%	----
Anions and Nutrients (QC Lot: 1846821)											
KS2500046-001	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: 1846822)											
KS2500046-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	4.21	4.26	1.29%	20%	----
Organic / Inorganic Carbon (QC Lot: 1846569)											
VA25A0915-007	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	5.00	mg/L	93.0	96.6	3.74%	20%	----
Total Sulfides (QC Lot: 1852437)											
VA25A1262-001	SQU US 1	Sulfide, total (as S)	18496-25-8	E395	0.0015	mg/L	<0.0015	<0.0015	0	Diff <2x LOR	----
Total Metals (QC Lot: 1847700)											
FJ2500190-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0154	0.0136	0.0017	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00011	0.00010	0.00001	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: 1847700) - continued											
FJ2500190-001	Anonymous	Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00013	0.00013	0.000001	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.203	0.202	0.536%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000210	0.0000179	0.0000031	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	43.2	41.6	3.71%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.050	0.050	0.0007	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0109	0.0106	2.32%	20%	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	21.9	21.6	1.17%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.00100	0.00095	0.00005	Diff <2x LOR	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000656	0.000623	5.24%	20%	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00122	0.00123	0.000004	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	0.718	0.714	0.518%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00042	0.00043	0.00001	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.00667	0.00652	2.26%	20%	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	1.82	1.86	1.99%	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	6.86	6.82	0.557%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.106	0.107	0.651%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	39.6	38.6	2.58%	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	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	0.00031	0.00001	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000989	0.00101	1.73%	20%	----

Sub-Matrix: **Water**

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Laboratory Duplicate (DUP) Report						
					LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Total Metals (QC Lot: 1847700) - continued											
FJ2500190-001	Anonymous	Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Total Metals (QC Lot: 1850351)											
VA25A1241-001	Anonymous	Mercury, total	7439-97-6	E508	0.000500	mg/L	0.0103	0.0104	1.45%	20%	----
Total Metals (QC Lot: 1853336)											
FJ2500204-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1846938)											
FJ2500166-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0036	0.0041	0.0005	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00286	0.00288	0.574%	20%	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00053	0.00056	0.00003	Diff <2x LOR	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.110	0.110	0.219%	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	0.176	0.172	2.15%	20%	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000385	0.0000371	0.0000014	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	205	205	0.00150%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	0.000030	0.000029	0.0000006	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00074	0.00074	0.000003	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00048	0.00051	0.00003	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.089	0.092	0.002	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.247	0.244	1.35%	20%	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	90.0	88.0	2.19%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0457	0.0462	1.09%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.00856	0.00864	0.910%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.0137	0.0143	4.23%	20%	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	0.059	0.059	0.0002	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	5.12	5.11	0.166%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00418	0.00426	1.99%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.0213	0.0238	11.3%	20%	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	5.61	5.66	0.875%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1846938) - continued											
FJ2500166-001	Anonymous	Sodium, dissolved	7440-23-5	E421	0.050	mg/L	177	172	2.50%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.363	0.370	2.02%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	267	256	3.88%	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	0.0140	0.0136	3.51%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00056	0.00054	0.00002	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0060	0.0063	0.0003	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1848788)											
VA25A1217-002	Anonymous	Mercury, dissolved	7439-97-6	E509	0.000500	mg/L	0.00125	0.00127	0.0000180	Diff <2x LOR	----
Speciated Metals (QC Lot: 1848694)											
VA24D4318-006	Anonymous	Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.00050	mg/L	0.00126	0.00125	0.000006	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: 1846825)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1851894)						
Solids, total suspended [TSS]	----	E160	3	mg/L	<3.0	----
Physical Tests (QCLot: 1851897)						
Solids, total dissolved [TDS]	----	E162	10	mg/L	<10	----
Anions and Nutrients (QCLot: 1846568)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1846570)						
Nitrogen, total	7727-37-9	E366	0.03	mg/L	<0.030	----
Anions and Nutrients (QCLot: 1846571)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1846817)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 1846818)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 1846819)						
Bromide	24959-67-9	E235.Br-L	0.05	mg/L	<0.050	----
Anions and Nutrients (QCLot: 1846820)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1846821)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1846822)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Organic / Inorganic Carbon (QCLot: 1846569)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Sulfides (QCLot: 1852437)						
Sulfide, total (as S)	18496-25-8	E395	0.0015	mg/L	<0.0015	----
Total Metals (QCLot: 1847700)						
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: 1847700) - 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: 1850351)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 1853336)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1846938)						
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	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1846938) - continued						
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1848788)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Speciated Metals (QCLot: 1848694)						
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: 1846825)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	500 mg/L	104	85.0	115	----
Physical Tests (QCLot: 1851894)									
Solids, total suspended [TSS]	----	E160	3	mg/L	150 mg/L	96.7	85.0	115	----
Physical Tests (QCLot: 1851897)									
Solids, total dissolved [TDS]	----	E162	10	mg/L	1000 mg/L	99.2	85.0	115	----
Anions and Nutrients (QCLot: 1846568)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	104	85.0	115	----
Anions and Nutrients (QCLot: 1846570)									
Nitrogen, total	7727-37-9	E366	0.03	mg/L	0.5 mg/L	98.2	75.0	125	----
Anions and Nutrients (QCLot: 1846571)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.05 mg/L	98.1	80.0	120	----
Anions and Nutrients (QCLot: 1846817)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	98.0	90.0	110	----
Anions and Nutrients (QCLot: 1846818)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1846819)									
Bromide	24959-67-9	E235.Br-L	0.05	mg/L	0.5 mg/L	96.5	85.0	115	----
Anions and Nutrients (QCLot: 1846820)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	98.9	90.0	110	----
Anions and Nutrients (QCLot: 1846821)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1846822)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	100	90.0	110	----
Organic / Inorganic Carbon (QCLot: 1846569)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	102	80.0	120	----
Total Sulfides (QCLot: 1852437)									
Sulfide, total (as S)	18496-25-8	E395	0.0015	mg/L	0.08 mg/L	101	80.0	120	----
Total Metals (QCLot: 1847700)									

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: 1847700) - continued									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	102	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	99.0	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	104	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	98.8	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	92.5	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	95.8	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	92.0	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	97.9	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	93.0	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	104	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	102	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	102	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	97.0	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	102	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	96.9	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	106	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	99.4	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	107	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	104	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	96.0	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	109	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	94.0	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	107	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	104	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	99.4	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	98.6	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	98.1	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	97.2	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	98.4	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	99.0	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	98.3	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	99.1	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: 1847700) - 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	101	80.0	120	----
Total Metals (QCLot: 1850351)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	93.0	80.0	120	----
Total Metals (QCLot: 1853336)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	98.8	80.0	120	----
Dissolved Metals (QCLot: 1846938)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	106	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	106	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	105	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	99.7	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	99.8	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	95.2	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	102	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	99.6	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	105	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	101	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	99.3	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	103	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	94.3	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	97.1	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	103	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	106	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	102	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	111	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	104	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	97.8	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	108	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	104	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	94.0	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	98.6	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1846938) - continued									
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	113	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	100	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	101	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	99.1	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	97.9	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	103	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	102	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	95.1	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	101	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	102	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	103	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	104	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	103	80.0	120	----
Speciated Metals (QCLot: 1848694)									
Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.0005	mg/L	0.25 mg/L	102	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: 1846568)										
VA25A1246-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	ND mg/L	----	ND	75.0	125	----
Anions and Nutrients (QCLot: 1846570)										
VA25A1262-002	SQU DS 1	Nitrogen, total	7727-37-9	E366	ND mg/L	----	ND	70.0	130	----
Anions and Nutrients (QCLot: 1846571)										
VA25A1262-002	SQU DS 1	Phosphorus, total	7723-14-0	E372-U	ND mg/L	----	ND	70.0	130	----
Anions and Nutrients (QCLot: 1846817)										
VA25A1262-001	SQU US 1	Fluoride	16984-48-8	E235.F	0.992 mg/L	1 mg/L	99.2	75.0	125	----
Anions and Nutrients (QCLot: 1846818)										
VA25A1262-001	SQU US 1	Chloride	16887-00-6	E235.Cl	101 mg/L	100 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 1846819)										
VA25A1262-001	SQU US 1	Bromide	24959-67-9	E235.Br-L	0.495 mg/L	0.5 mg/L	99.1	75.0	125	----
Anions and Nutrients (QCLot: 1846820)										
VA25A1262-001	SQU US 1	Nitrate (as N)	14797-55-8	E235.NO3-L	2.49 mg/L	2.5 mg/L	99.4	75.0	125	----
Anions and Nutrients (QCLot: 1846821)										
VA25A1262-001	SQU US 1	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: 1846822)										
VA25A1262-001	SQU US 1	Sulfate (as SO4)	14808-79-8	E235.SO4	100 mg/L	100 mg/L	100	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1846569)										
VA25A1262-001	SQU US 1	Carbon, dissolved organic [DOC]	----	E358-L	4.93 mg/L	5 mg/L	98.6	70.0	130	----
Total Sulfides (QCLot: 1852437)										
VA25A1262-002	SQU DS 1	Sulfide, total (as S)	18496-25-8	E395	0.234 mg/L	0.2 mg/L	117	75.0	125	----
Total Metals (QCLot: 1847700)										
FJ2500190-002	Anonymous	Aluminum, total	7429-90-5	E420	0.198 mg/L	0.2 mg/L	98.8	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Barium, total	7440-39-3	E420	ND mg/L	----	ND	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0391 mg/L	0.04 mg/L	97.9	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00932 mg/L	0.01 mg/L	93.2	70.0	130	----
		Boron, total	7440-42-8	E420	0.094 mg/L	0.1 mg/L	93.8	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00410 mg/L	0.004 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	0.0104 mg/L	0.01 mg/L	104	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0399 mg/L	0.04 mg/L	99.7	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1847700) - continued										
FJ2500190-002	Anonymous	Cobalt, total	7440-48-4	E420	0.0194 mg/L	0.02 mg/L	96.9	70.0	130	----
		Copper, total	7440-50-8	E420	0.0185 mg/L	0.02 mg/L	92.6	70.0	130	----
		Iron, total	7439-89-6	E420	1.90 mg/L	2 mg/L	95.0	70.0	130	----
		Lead, total	7439-92-1	E420	0.0179 mg/L	0.02 mg/L	89.3	70.0	130	----
		Lithium, total	7439-93-2	E420	0.0880 mg/L	0.1 mg/L	88.0	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0191 mg/L	0.02 mg/L	95.4	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0377 mg/L	0.04 mg/L	94.4	70.0	130	----
		Phosphorus, total	7723-14-0	E420	9.83 mg/L	10 mg/L	98.3	70.0	130	----
		Potassium, total	7440-09-7	E420	3.91 mg/L	4 mg/L	97.7	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0195 mg/L	0.02 mg/L	97.3	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0404 mg/L	0.04 mg/L	101	70.0	130	----
		Silicon, total	7440-21-3	E420	9.88 mg/L	10 mg/L	98.8	70.0	130	----
		Silver, total	7440-22-4	E420	0.00404 mg/L	0.004 mg/L	101	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	0.0411 mg/L	0.04 mg/L	103	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00363 mg/L	0.004 mg/L	90.9	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0196 mg/L	0.02 mg/L	98.3	70.0	130	----
		Tin, total	7440-31-5	E420	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0393 mg/L	0.04 mg/L	98.2	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0186 mg/L	0.02 mg/L	92.8	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00395 mg/L	0.004 mg/L	98.8	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.100 mg/L	0.1 mg/L	100	70.0	130	----
		Zinc, total	7440-66-6	E420	0.378 mg/L	0.4 mg/L	94.4	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0401 mg/L	0.04 mg/L	100	70.0	130	----
Total Metals (QCLot: 1850351)										
VA25A1241-002	Anonymous	Mercury, total	7439-97-6	E508	0.00954 mg/L	0.01 mg/L	95.4	70.0	130	----
Total Metals (QCLot: 1853336)										
FJ2500204-002	Anonymous	Mercury, total	7439-97-6	E508	0.000103 mg/L	0 mg/L	103	70.0	130	----
Dissolved Metals (QCLot: 1846938)										
FJ2500166-002	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.204 mg/L	0.2 mg/L	102	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0201 mg/L	0.02 mg/L	100	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0216 mg/L	0.02 mg/L	108	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	----	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0401 mg/L	0.04 mg/L	100	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00872 mg/L	0.01 mg/L	87.2	70.0	130	----
		Boron, dissolved	7440-42-8	E421	ND mg/L	----	ND	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00390 mg/L	0.004 mg/L	97.5	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0102 mg/L	0.01 mg/L	102	70.0	130	----

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: 1846938) - continued										
FJ2500166-002	Anonymous	Chromium, dissolved	7440-47-3	E421	0.0405 mg/L	0.04 mg/L	101	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0190 mg/L	0.02 mg/L	94.8	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0177 mg/L	0.02 mg/L	88.7	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.89 mg/L	2 mg/L	94.7	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0172 mg/L	0.02 mg/L	85.9	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	ND mg/L	----	ND	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	0.0214 mg/L	0.02 mg/L	107	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0369 mg/L	0.04 mg/L	92.2	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.7 mg/L	10 mg/L	107	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	ND mg/L	----	ND	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0189 mg/L	0.02 mg/L	94.6	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0450 mg/L	0.04 mg/L	112	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	10.4 mg/L	10 mg/L	104	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00243 mg/L	0.004 mg/L	60.8	70.0	130	MES
		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	0.0418 mg/L	0.04 mg/L	104	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00352 mg/L	0.004 mg/L	88.0	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0171 mg/L	0.02 mg/L	85.5	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0436 mg/L	0.04 mg/L	109	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0190 mg/L	0.02 mg/L	95.0	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	ND mg/L	----	ND	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.102 mg/L	0.1 mg/L	102	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.363 mg/L	0.4 mg/L	90.8	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0428 mg/L	0.04 mg/L	107	70.0	130	----
Dissolved Metals (QCLot: 1848788)										
VA25A1241-001	Anonymous	Mercury, dissolved	7439-97-6	E509	ND mg/L	----	ND	70.0	130	----
Speciated Metals (QCLot: 1848694)										
VA25A1262-001	SQU US 1	Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.261 mg/L	0.25 mg/L	104	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).*

ALS Environmental
www.alsglobal.com

Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 17 -

Page 1 of

Report To	Contact and company name below will appear on the final report
Company:	Triton Environmental
Contact:	
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: ☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)
Quality Control (QC) Report with Report ☑ ☐ 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 Invoice D
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: Jan 28/2025

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

Project Information VA25-TRIT(00-001

ALS Account # / Quote #:	AFE/Cost Center:
Job #: 11964	Major/Minor Code:
PO / AFE: 11964 - Task 20 - Phase 3C-4C	Requisitioner:
LSD:	Location:
ALS Lab Work Order # (lab use only): A1262	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	Dissolved metals + mercury	Total hexavalent chromium	Total trivalent chromium	TSS	TDS	Nutrients (ammonia, ammonium, total nitrogen, total phosphorus)	Total sulfide (low) (as H2S), Unionized Sulfide (low)	Anions scan (Br, Cl, F, NO2, NO3, SO4)	General parameters (alkalinity)	DOC	SAMPLES ON HOLD	Sample is hazardous (please provide further details)	NUMBER OF CONTAINERS
						F					P	P			F/P			
	SQU US 1	Jan 20	10:53	Water	R	R	R	R	R	R	R	R	R	R	R		N	9
	pH: 7.27 cond: 91 temp: 2.3																	
	SQU DS 1	Jan 20	12:25	Water	R	R	R	R	R	R	R	R	R	R	R		N	9
	pH: 7.27 cond: 88 temp: 2.2																	
	Trip Blank	Jan 20	10:50	Water	R	R	R	R	R	R	R	R	R	R	R			

Environmental Division
Vancouver
Work Order Reference
VA25A1262

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 (ele

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
	5

SHIPMENT RELEASE (client use)

Released b: Jan 20/2025 Time: 5:08

INITIAL SHIPMENT RECEPTION (lab use only)

Received by: Date: Time:

FINAL SHIPMENT RECEPTION (lab use only)

Received by: Date: JAN-20 Time: 1715

REFER TO B... ...ONS 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.**

BCR Site Receiving Environment Field Notes and Logs

FortisBC Eagle Mountain-Woodfibre Gas Pipeline

Water Discharge Authorization Water Quality Monitoring

2025-1-20-Renkers-F4CD9

Project Component:	Tunnel	**Site Name:**	Receiving Environment - Downstream of Discharge
Inspection Date:	01/20/2025	**Location:**	BC Rail Site
Triton QP:	Stephanie Renkers	**Latitude/Longitude:**	49.725338 -123.165189
Temperature(c):	Low -4 High 2	**Permit:**	AE 111824
Weather Conditions:	Clear	**Ground Conditions:**	Dry

Observations

Time: 12:25:00 **Flow Volume (visual):** low

Notes:

Odour Detected?:	No	**Notes:**	
Unusual Colour?	No	**Notes:**	
Unusual Observations?	No	**Notes:**	
Sheen on Water?	No	**Notes:**	

Samples Collected - Parameters

Total Metals + Mercury	Yes	**General Parameters (Alkalinity)**	Yes	**Other Sample:**	
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

Recalibrated sonde and troubleshooting probes.

Photos

Photo: 1

Location: SQU DS1

Description: Upstream view

Photo: 2

Location: SQU DS1

Description: Across view

Photos

Photo: 3

Location: SQU DS1

Description: Downstream view

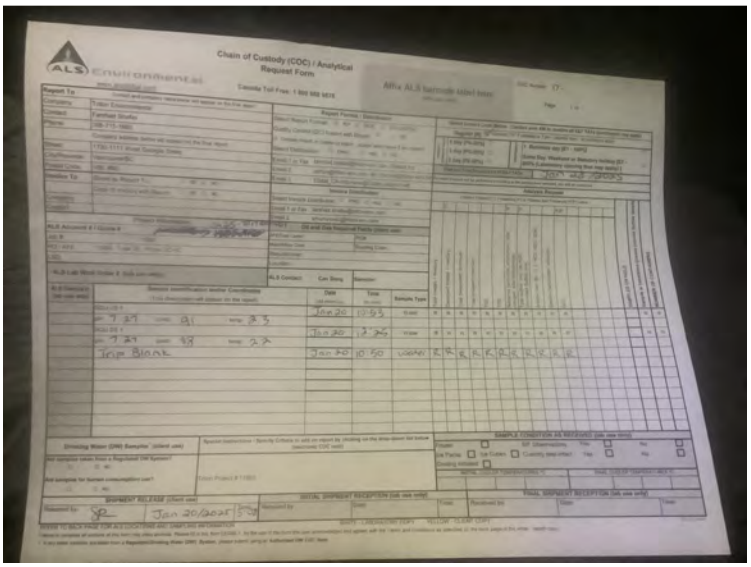


Photo: 4

Location: SQU DS1

Description: Lab COC

Sign Off

Report Prepared By:	Stephanie Renkers	**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

2025-1-20-Renkers-A8F02

Project Component:	Tunnel	**Site Name:**	Receiving Environment - Upstream of Discharge
Inspection Date:	01/20/2025	**Location:**	BC Rail Site
Triton QP:	Stephanie Renkers	**Latitude/Longitude:**	49.726866 -123.163912
Temperature(c):	Low -4 High 2	**Permit:**	AE 111824
Weather Conditions:	Clear	**Ground Conditions:**	Dry

Observations

Time: 10:53:37 **Flow Volume (visual):** low

Notes:

Odour Detected?:	No	**Notes:**	
Unusual Colour?	No	**Notes:**	
Unusual Observations?	No	**Notes:**	
Sheen on Water?	No	**Notes:**	

Samples Collected - Parameters

Total Metals + Mercury	Yes	**General Parameters (Alkalinity)**	Yes	**Other Sample:**	
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

Recalibrated sonde to make turbidity readings precise.

Photos

Photo: 1

Location: SQU US1

Description: Downstream view

Photo: 2

Location: SQU US1

Description: Across view

Photos

Photo: 3

Location: SQU US1

Description: Upstream view

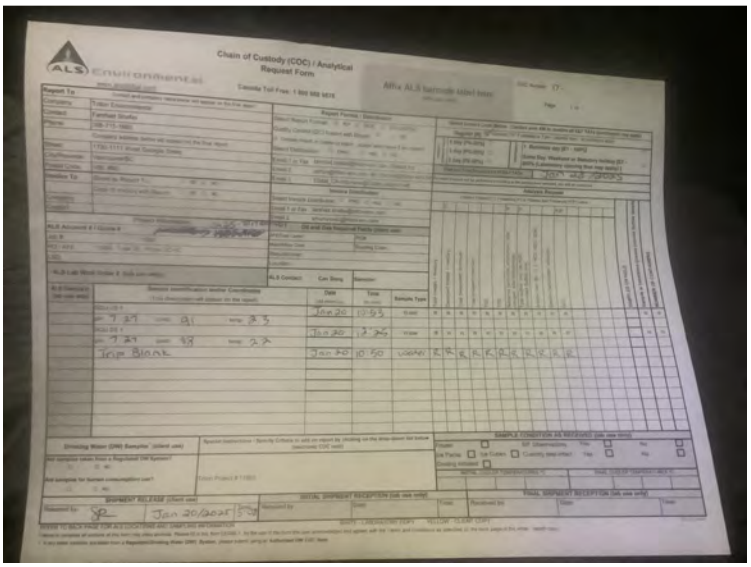


Photo: 4

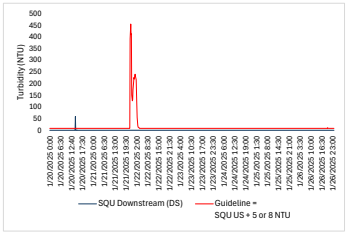
Location: SQU US1

Description: Lab COC

Sign Off

Report Prepared By:	Stephanie Renkers	**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
1/20/2025 0:00	1.9	81.3	0.0	7.0	12.3	0.0	1/20/2025 0:00	1.0	4.4	0.0	6.7	14.4	0.0	8.0
1/20/2025 0:15	1.9	81.5	0.0	7.0	12.3	0.0	1/20/2025 0:15	1.0	4.5	0.0	6.5	14.4	0.0	8.0
1/20/2025 0:30	1.8	81.1	0.0	7.0	12.3	0.0	1/20/2025 0:30	1.0	4.6	0.0	6.4	14.4	0.0	8.0
1/20/2025 0:45	1.8	80.9	0.0	7.0	12.3	0.0	1/20/2025 0:45	1.0	4.0	0.0	6.2	14.5	0.0	8.0
1/20/2025 1:00	1.8	80.7	0.0	7.0	12.3	0.0	1/20/2025 1:00	1.0	4.8	0.0	6.2	14.4	0.0	8.0
1/20/2025 1:15	1.8	80.7	0.0	6.9	12.3	0.0	1/20/2025 1:15	0.8	9.1	0.0	6.0	14.4	0.0	8.0
1/20/2025 1:30	1.8	80.7	0.0	7.0	12.4	0.0	1/20/2025 1:30	0.7	9.3	0.0	6.0	14.5	0.0	8.0
1/20/2025 1:45	1.7	80.2	0.0	7.0	12.4	0.0	1/20/2025 1:45	0.6	9.5	0.0	6.0	14.5	0.0	8.0
1/20/2025 2:00	1.7	80.4	0.0	6.9	12.4	0.0	1/20/2025 2:00	0.5	10.8	0.0	5.8	14.6	0.0	8.0
1/20/2025 2:15	1.7	80.4	0.0	6.9	12.4	0.0	1/20/2025 2:15	0.5	11.3	0.0	5.8	14.6	0.0	8.0
1/20/2025 2:30	1.7	80.1	0.0	7.0	12.4	0.0	1/20/2025 2:30	0.4	12.1	0.0	5.7	14.6	0.0	8.0
1/20/2025 2:45	1.7	79.9	0.0	7.0	12.4	0.0	1/20/2025 2:45	0.3	13.1	0.0	5.4	14.7	0.0	8.0
1/20/2025 3:00	1.7	79.5	0.0	7.0	12.4	0.0	1/20/2025 3:00	0.2	14.1	0.0	5.0	14.7	0.0	8.0
1/20/2025 3:15	1.7	79.8	0.0	7.0	12.4	0.0	1/20/2025 3:15	0.1	15.5	0.0	4.7	14.7	0.0	8.0
1/20/2025 3:30	1.7	79.9	0.0	7.0	12.4	0.0	1/20/2025 3:30	-0.1	16.9	0.0	4.6	14.8	0.0	8.0
1/20/2025 3:45	1.6	79.6	0.0	7.0	12.4	0.0	1/20/2025 3:45	-0.3	18.1	0.0	4.5	14.9	0.0	8.0
1/20/2025 4:00	1.6	79.5	0.0	7.0	12.4	0.0	1/20/2025 4:00	-0.4	0.0	0.0	4.3	15.0	0.0	8.0
1/20/2025 4:15	1.6	79.5	0.0	7.0	12.4	0.0	1/20/2025 4:15	-0.5	0.0	0.0	4.2	15.0	0.0	8.0
1/20/2025 4:30	1.6	79.5	0.0	7.0	12.4	0.0	1/20/2025 4:30	-0.6	0.0	0.0	4.2	15.1	0.0	8.0
1/20/2025 4:45	1.6	79.4	0.0	7.0	12.4	0.0	1/20/2025 4:45	-0.6	0.0	0.0	4.2	15.1	0.0	8.0
1/20/2025 5:00	1.6	79.3	0.0	7.0	12.4	0.0	1/20/2025 5:00	-0.7	0.0	0.0	4.2	15.1	0.0	8.0
1/20/2025 5:15	1.6	79.2	0.0	7.0	12.4	0.0	1/20/2025 5:15	-0.7	0.0	0.0	4.3	15.1	0.0	8.0
1/20/2025 5:30	1.6	79.2	0.0	7.0	12.4	0.0	1/20/2025 5:30	-0.8	0.0	0.0	4.1	15.2	0.0	8.0
1/20/2025 5:45	1.6	79.1	0.0	7.0	12.4	0.0	1/20/2025 5:45	-0.8	0.0	0.0	3.8	15.2	0.0	8.0
1/20/2025 6:00	1.5	79.3	0.0	7.0	12.4	0.0	1/20/2025 6:00	-0.8	0.0	0.0	3.7	15.2	0.0	8.0
1/20/2025 6:15	1.5	79.3	0.0	7.0	12.4	0.0	1/20/2025 6:15	-0.9	0.0	0.0	3.6	15.2	0.0	8.0
1/20/2025 6:30	1.5	79.3	0.0	7.0	12.4	0.0	1/20/2025 6:30	-1.0	0.0	0.0	3.6	15.3	0.0	8.0
1/20/2025 6:45	1.5	79.5	0.0	7.0	12.4	0.0	1/20/2025 6:45	-0.9	0.0	0.0	3.4	15.3	0.0	8.0
1/20/2025 7:00	1.5	79.1	0.0	7.0	12.4	0.0	1/20/2025 7:00	-1.0	0.0	0.0	3.3	15.3	0.0	8.0
1/20/2025 7:15	1.5	79.0	0.0	7.0	12.4	0.0	1/20/2025 7:15	-1.0	0.0	0.0	3.2	15.3	0.0	8.0
1/20/2025 7:30	1.5	79.1	0.0	7.0	12.5	0.0	1/20/2025 7:30	-0.8	0.0	0.0	3.1	15.3	0.0	8.0
1/20/2025 7:45	1.5	79.3	0.0	7.0	12.4	0.0	1/20/2025 7:45	2.1	87.9	0.0		13.0	0.0	8.0
1/20/2025 8:00	1.5	79.0	0.0	7.0	12.4	0.0	1/20/2025 8:00	2.3	87.6	0.0	6.8	13.0	0.0	8.0
1/20/2025 8:15	1.5	78.6	0.0	7.0	12.5	0.0	1/20/2025 8:15	2.4	87.0	0.0	7.1	13.0	0.0	8.0
1/20/2025 8:30	1.5	78.2	0.0	7.0	12.5	0.0	1/20/2025 8:30	2.4	86.2	0.0	7.2	13.0	0.0	8.0
1/20/2025 8:45	1.5	77.8	0.0	7.0	12.5	0.0	1/20/2025 8:45	2.4	85.7	0.0	7.3	13.0	0.0	8.0
1/20/2025 9:00	1.5	77.4	0.0	7.0	12.5	0.0	1/20/2025 9:00	2.4	85.1	0.0	7.3	13.0	0.0	8.0
1/20/2025 9:15	1.5	77.1	0.0	7.0	12.5	0.0	1/20/2025 9:15	2.4	84.7	0.0	7.2	13.0	0.0	8.0
1/20/2025 9:30	1.4	76.9	0.0	7.0	12.5	0.0	1/20/2025 9:30	2.4	84.5	0.0	7.2	13.0	0.0	8.0
1/20/2025 9:45	1.4	76.8	0.0	7.0	12.5	0.0	1/20/2025 9:45	2.4	84.2	0.0	7.2	13.0	0.0	8.0
1/20/2025 10:00	1.4	76.5	0.0	7.0	12.5	0.0	1/20/2025 10:00	2.4	84.3	0.0	7.2	13.0	0.0	8.0
1/20/2025 10:15	1.4	76.4	0.0	7.0	12.5	0.0	1/20/2025 10:15	2.5	86.2	0.0	7.1	13.0	0.0	8.0
1/20/2025 10:30	1.5	77.4	0.0	7.0	12.5	0.0	1/20/2025 10:30	2.6	89.9	0.0	7.1	12.9	0.0	8.0
1/20/2025 10:45	1.5	79.2	0.0	7.0	12.5	0.0	1/20/2025 10:45	2.6	88.3	0.0	7.1	12.9	0.0	8.0
1/20/2025 11:00	1.5	79.4	0.0	7.0	12.5	0.0	1/20/2025 11:00	2.5	86.1	0.0	7.1	13.0	0.0	8.0
1/20/2025 11:15	1.5	78.0	0.0	7.0	12.5	0.0	1/20/2025 11:15	2.6	85.8	0.0	7.1	13.0	0.0	8.0
1/20/2025 11:30	1.5	77.4	0.0	7.0	12.6	0.0	1/20/2025 11:30	2.6	86.6	0.0	7.1	13.1	0.0	8.0
1/20/2025 11:45	1.6	77.7	0.0	7.0	12.6	0.0	1/20/2025 11:45	2.7	89.7	0.0	7.1	13.0	0.0	8.0
1/20/2025 12:00	1.6	79.1	0.0	7.0	12.6	0.0	1/20/2025 12:00	2.8	92.3	0.0	7.1	13.0	0.0	8.0
1/20/2025 12:10	1.7	80.8	0.0	7.0	12.6	0.0	1/20/2025 12:10	2.9	94.2	0.0	7.1	12.9	0.0	8.0
1/20/2025 12:20	1.7	81.9	0.0	7.0	12.5	0.0	1/20/2025 12:20	2.9	94.8	0.0	7.1	12.9	0.0	8.0
1/20/2025 12:30	1.8	83.2	0.0	7.0	12.5	0.0	1/20/2025 12:30	2.6	90.3	0.0	7.1	12.9	0.0	8.0
1/20/2025 12:40	1.8	83.4	0.0	7.0	12.5	0.0	1/20/2025 12:40	2.6	87.5	0.0	7.1	12.9	0.0	8.0
1/20/2025 12:50	1.9	83.0	0.0	7.0	12.5	0.0	1/20/2025 12:50	2.6	86.3	0.0	7.1	13.0	0.0	8.0
1/20/2025 13:00	1.9	83.9	0.0	7.0	12.5	0.0	1/20/2025 13:00	2.6	85.9	0.0	7.1	13.0	0.0	8.0
1/20/2025 13:10	2.0	84.9	0.0	7.0	12.5	0.0	1/20/2025 13:10	2.6	87.6	0.0	7.1	13.1	0.0	8.0
1/20/2025 13:20	2.0	85.5	0.0	7.0	12.5	0.0	1/20/2025 13:20	2.7	90.3	0.0	7.1	13.0	0.0	8.0
1/20/2025 13:30	2.1	87.2	0.0	7.0	12.4	0.0	1/20/2025 13:30	2.8	93.2	0.0	7.1	13.0	0.0	8.0
1/20/2025 13:40	2.1	87.8	0.0	7.0	12.4	0.0	1/20/2025 13:40	2.5	5.9	0.0	7.1	13.7	0.0	8.0
1/20/2025 13:50	2.2	88.1	0.0	7.0	12.4	0.0	1/20/2025 13:50	3.2	95.0	0.0	6.5	12.9	0.0	8.0
1/20/2025 14:00	4.5	188.4	0.1	6.4	11.7	0.0	1/20/2025 14:00	3.1	5.4	0.0	6.8	13.5	0.0	8.0
1/20/2025 14:10	2.5	80.3	0.0	6.8	12.3	59.4	1/20/2025 14:10	3.0	5.6	0.0	6.8	13.6	0.0	8.0
1/20/2025 14:20	4.5	182.4	0.1	6.5	11.8	0.0	1/20/2025 14:20	2.9	5.6	0.0	6.8	13.6	0.0	8.0
1/20/2025 14:30	4.2	0.1	0.0	6.6	12.3	0.0	1/20/2025 14:30	2.9	5.6	0.0	6.7	13.6	0.0	8.0
1/20/2025 14:40	3.7	0.1	0.0	6.6	12.5	0.0	1/20/2025 14:40	2.9	5.6	0.0	6.7	13.6	0.0	8.0
1/20/2025 14:50	2.7	81.1	0.0	6.6	12.4	0.3	1/20/2025 14:50	2.8	5.6	0.0	6.8	13.6	0.0	8.0
1/20/2025 15:00	2.5	81.0	0.0	6.7	12.5	0.0	1/20/2025 15:00	2.8	5.6	0.0	6.7	13.6	0.0	8.0
1/20/2025 15:10	2.4	80.8	0.0	6.8	12.5	0.0	1/20/2025 15:10	2.8	5.6	0.0	6.7	13.6	0.0	8.0
1/20/2025 15:20	2.3	80.6	0.0	6.9	12.4	0.0	1/20/2025 15:20	2.8	5.5	0.0	6.7	13.6	0.0	8.0
1/20/2025 15:30	2.3	80.8	0.0	6.9	12.5	0.0	1/20/2025 15:30	2.9	5.5	0.0	6.7	13.6	0.0	8.0
1/20/2025 15:40	2.3	80.7	0.0	6.9	12.4	0.0	1/20/2025 15:40	3.0	5.5	0.0	6.7	13.6	0.0	8.0
1/20/2025 15:50	2.3	80.5	0.0	6.9	12.4	0.0	1/20/2025 15:50	3.0	5.5	0.0	6.8	13.6	0.0	8.0
1/20/2025 16:00	2.3	80.4	0.0	6.9	12.4	0.0	1/20/2025 16:01	3.1	5.5	0.0	6.8	13.5	0.0	8.0
1/20/2025 16:15	2.3	80.4	0.0	7.0	12.4	0.0	1/20/2025 16:15	3.1	5.4	0.0	6.8	13.5	0.0	8.0
1/20/2025 16:30	2.3	80.6	0.0	7.0	12.4	0.0	1/20/2025 16:30	3.1	5.5	0.0	6.7	13.5	0.0	8.0
1/20/2025 16:45	2.3	80.9	0.0	7.0	12.4	0.0	1/20/2025 16:45	3.0	5.5	0.0	6.7	13.6	0.0	8.0
1/20/2025 17:00	2.3	81.0	0.0	7.0	12.4	0.0	1/20/2025 17:00	2.9	5.5	0.0	6.8	13.6	0.0	8.0
1/20/2025 17:15	2.3	80.9	0.0	7.0	12.4	0.0	1/20/2025 17:15	2.7	5.5	0.0	6.8	13.6	0.0	8.0
1/20/2025 17:30	2.3	81.1	0.0	7.0	12.4	0.0	1/20/2025 17:30	2.6	5.5	0.0	6.7	13.7	0.0	8.0
1/20/2025 17:45	2.3	81.0	0.0	7.0	12.4	0.0	1/20/2025 17:45	2.4	5.6	0.0	6.7	13.8	0.0	8.0
1/20/2025 18:00	2.2	81.1	0.0	7.0	12.4	0.0	1/20/2025 18:00	2.2	5.4	0.0	7.0	13.8	0.0	8.0
1/20/2025 18:15	2.2	81.2	0.0	7.0	12.4	0.0	1/20/2025 18:15	1.9	5.4	0.0		14.0		8.0
1/20/2025 18:30	2.2	81.2	0.0	7.0	12.4	0.0	1/20/2025 18:30	2.0	5.4	0.0	6.8	13.9	0.0	8.0
1/20/2025 18:45	2.2	81.2	0.0	7.0	12.4	0.0	1/20/2025 18:45	1.9	5.4	0.0	6.8	14.0	0.0	8.0
1/20/2025 19:00	2.2	81.3	0.0	7.0	12.3	0.0	1/20/2025 19:00	1.8	5.2	0.0	6.8	14.0	0.0	8.0
1/20/2025 19:15	2.2	81.4	0.0	7.0	12.3	0.0	1/20/2025 19:15	1.7	5.4	0.0	6.7	14.0	0.0	8.0
1/20/2025 19:30	2.2	81.5	0.0	7.0	12.3	0.0	1/20/2025 19:30	1.7	5.3	0.0	6.7	14.0	0.0	8.0
1/20/2025 19:45	2.2	81.6	0.0	7.0	12.3	0.0	1/20/2025 19:45	1.6	5.4	0.0	6.7	14.1	0.0	8.0
1/20/2025 20:00	2.2	81.9	0.0	7.0	12.3	0.0	1/20/2025 20:00	1.5	5.6	0.0	6.7	14.1	0.0	8.0
1/20/2025 20:15	2.2	82.2	0.0	7.0	12.3	0.0	1/20/2025 20:15	1.4	5.4	0.0	6.9	14.1	0.0	8.0
1/20/2025 20:30	2.2	82.1	0.0	7.0	12.3	0.0	1/20/2025 20:30	1.4	5.4	0.0	6.8	14.2	0.0	8.0
1/20/2025 20:45	2.2	82.1	0.0	7.0	12.3	0.0	1/20/2025 20:45	1.3	5.4	0.0	6.8	14.2	0.0	8.0
1/20/2025 21:00	2.2	82.3	0.0	7.0	12.3	0.0	1/20/2025 21:00	1.3	5.3	0.0	6.7	14.2	0.0	8.0
1/20/2025 21:15	2.1	82.4	0.0	7.0	12.3	0.0	1/20/2025 21:15	1.2	5.3	0.0	6.7	14.2	0.0	8.0
1/20/2025 21:30	2.2	82.7	0.0	7.0	12.3	0.0	1/20/2025 21:30	1.1	5.3	0.0	6.7	14.2	0.0	8.0
1/20/2025 21:45	2.1	82.8	0.0	7.0	12.2	0.0	1/20/2025 21:45	1.1	5.3	0.0	6.7	14.3	0.0	8.0
1/20/2025 22:00	2.1	82.8	0.0	7.0	12.2	0.0	1/20/2025 22:00	1.0	5.3	0.0	6.7	14.3	0.0	8.0
1/20/2025 22:15	2.1	83.1	0.0	7.0	12.2	0.0	1/20/2025 22:15	1.0	5.2	0.0	6.9	14.3	0.0	8.0
1/20/2025 22:30	2.1	83.0	0.0	7.0	12.2	0.0	1/20/2025 22:30	0.9	5.3	0.0	6.8	14.3	0.0	8.0
1/20/2025 22:45	2.1	82.9	0.0	7.0	12.2	0.0	1/20/2025 22:45	0.9	5.3	0.0	6.8	14.3	0.0	8.0
1/20/2025 23:00	2.1	83.0	0.0	7.0	12.2	0.0	1/20/2025 23:00	0.9	5.1	0.0	6.7	14.4	0.0	8.0
1/20/2025 23:15	2.1	83.0	0.0	7.0	12.2	0.0	1/20/2025 23:15	0.9	5.2	0.0	6.8	14.4	0.0	8.0
1/20/2025 23:30	2.1	83.1	0.0	7.0	12.2	0.0	1/20/2025 23:30	0.8	5.3	0.0	6.7	14.4	0.0	8.0
1/20/2025 23:45	2.1	82.9	0.0	7.0	12.2	0.0	1/20/2025 23:45	0.8	5.3	0.0	6.7	14.4	0.0	8.0
1/21/2025 0:00	2.1	82.6	0.0	7.0	12.2	0.0	1/21/2025 0:00	0.8	5.2	0.0	6.7	14.4	0.0	8.0
1/21/2025 0:15	2.1	82.2	0.0	7.0	12.2	0.0	1/21/2025 0:15	0.8	5.2	0.0	6.9	14.4	0.0	8.0
1/21/2025 0:30	2.1	81.5	0.0	7.0	12.3	0.0	1/21/2025 0:30	0.8	5.2	0.0	6.9	14.4	0.0	8.0
1/21/2025 0:45	2.1	80.6	0.0	7.0	12.3	0.0	1/21/2025 0:45	0.8	5.2	0.0	6.8	14.4	0.0	8.0
1/21/2025 1:00	2.0	80.3	0.0	7.0	12.3	0.0	1/21/2025 1:00	0.7	5.3	0.0	6.7	14.4	0.0	8.0
1/21/2025 1:15	2.0	79.8	0.0	7.0	12.3	0.0	1/21/2025 1:15	0.6	5.3	0.0	6.7	14.4	0.0	8.0
1/21/2025 1:30	2.0	79.3	0.0	7.0	12.3	0.0	1/21/2025 1:30	0.6	5.2	0.0	6.7	14.5	0.0	8.0
1/21/2025 1:45	2.0	78.9	0.0	7.0	12.3	0.0	1/21/2025 1:45	0.5	5.3	0.0	6.7	14.5	0.0	8.0
1/21/2025 2:00	2.0	78.3	0.0	7.0	12.3	0.0	1/21/2025 2:00	0.5	5.0	0.0	6.8	14.5	0.0	8.0
1/21/2025 2:15	2.0	77.8	0.0	7.0	12.3	0.0	1/21/2025 2:15	0.4	5.1	0.0	6.9	14.5	0.0	8.0
1/21/2025 2:30	1.9	77.5	0.0	7.0	12.4	0.0	1/21/2025 2:30	0.3	5.1	0.0	6.8	14.6	0.0	8.0
1/21/2025 2:45	1.9	77.1	0.0	7.0	12.4	0.0	1/21/2025 2:45	0.2	5.2	0.0	6.8	14.6	0.0	8.0
1/21/2025 3:00	1.9	77.0	0.0	7.0	12.4	0.0	1/21/2025 3:00	0.9	5.2	0.0	6.7	14.3	0.0	8.0
1/21/2025 3:15	1.9	76.8	0.0	7.0	12.3	0.0	1/21/2025 3:15	1.0	11.1	0.0	6.7	14.3	0.0	8.0
1/21/2025 3:30	1.9	76.5	0.0	7.0	12.3	0.0	1/21/2025 3:30	1.0	11.1	0.0	6.7	14.4	0.0	8.0
1/21/2025 3:45	1.9	76.2	0.0	7.0	12.3	0.0	1/21/2025 3:45	1.0	11.8	0.0	6.8	14.4	0.0	8.0
1/21/2025 4:00	1.9	75.9	0.0	7.0	12.4	0.0	1/21/2025 4:00	1.0	9.0	0.0	6.8	14.4	0.0	8.0
1/21/2025 4:15	1.8	75.7	0.0	7.0	12.4	0.0	1/21/2025 4:15	1.0	11.2	0.0	6.9	14.4	0.0	8.0
1/21/2025 4:30	1.8	75.4	0.0	7.0	12.4	0.0	1/21/2025 4:30	0.9	12.6	0.0	6.8	14.5	0.0	8.0
1/21/2025 4:45	1.9	75.6	0.0	7.0	12.4	0.0	1/21/2025 4:45	0.9	14.1	0.0	6.7	14.5	0.0	8.0
1/21/2025 5:00	1.9	75.3	0.0	7.0	12.4	0.0	1/21/2025 5:00	0.9	14.9	0.0	6.8	14.4	0.0	8.0
1/21/2025 5:15	1.8	75.0	0.0	7.0	12.4	0.0	1/21/2025 5:15	0.7	7.1	0.0	6.7	14.4	0.0	8.0
1/21/2025 5:30	1.8	75.1	0.0	7.0	12.4	0.0	1/21/2025 5:30	0.6	5.7	0.0	6.6	14.5	0.0	8.0
1/21/2025 5:45	1.8	74.8	0.0	7.0	12.4	0.0	1/21/2025 5:45	0.5	6.2	0.0	6.3	14.5	0.0	8.0
1/21/2025 6:00	1.8	74.4	0.0	7.0	12.4	0.0	1/21/2025 6:00	0.4	0.0	0.0	6.2	14.6	0.0	8.0
1/21/2025 6:15	1.8	74.3	0.0	7.0	12.4	0.0	1/21/2025 6:15	0.2	0.0	0.0	6.2	14.6	0.0	8.0
1/21/2025 6:30	1.8	74.3	0.0	7.0	12.4	0.0	1/21/2025 6:30	0.1	0.0	0.0	6.1	14.7	0.0	8.0
1/21/2025 6:45	1.8	74.2	0.0	7.0	12.4	0.0	1/21/2025 6:45	-0.1	0.0	0.0	6.0	14.8	0.0	8.0
1/21/2025 7:00	1.8	73.9	0.0	7.0	12.4	0.0	1/21/2025 7:00	-0.2	0.0	0.0	5.8	14.8	0.0	8.0
1/21/2025 7:15	1.8	74.0	0.0	7.0	12.4	0.0	1/21/2025 7:15	-0.4	0.0	0.0	5.7	14.9	0.0	8.0



1/21/2025 7:30	1.8	74.2	0.0	7.0	12.4	0.0	1/21/2025 7:30	-0.5	0.0	0.0	5.7	14.9	0.0	8.0
1/21/2025 7:45	1.8	74.1	0.0	7.0	12.4	0.0	1/21/2025 7:45	-0.5	0.0	0.0	5.6	15.0	0.0	8.0
1/21/2025 8:00		74.1	0.0	7.0	12.4	0.0	1/21/2025 8:00	-0.6	0.0	0.0	5.5	15.0	0.0	8.0
1/21/2025 8:15	1.8	74.7	0.0	7.0	12.4	0.0	1/21/2025 8:15	-0.1	0.0	0.0	5.3	15.2	0.0	8.0
1/21/2025 8:30	1.8	74.8	0.0	7.0	12.4	0.0	1/21/2025 8:30	2.5	83.7	0.0	6.6	13.1	0.0	8.0
1/21/2025 8:45	1.8	74.9	0.0	7.1	12.4	0.0	1/21/2025 8:45	2.6	83.1	0.0	7.2	13.0	0.0	8.0
1/21/2025 9:00	1.8	74.9	0.0	7.1	12.4	0.0	1/21/2025 9:00	2.6	82.7	0.0	7.2	13.0	0.0	8.0
1/21/2025 9:15	1.8	75.1	0.0	7.1	12.4	0.0	1/21/2025 9:15	2.7	82.8	0.0	7.2	13.0	0.0	8.0
1/21/2025 9:30	1.8	75.8	0.0	7.0	12.4	0.0	1/21/2025 9:30	2.7	83.5	0.0	7.1	13.0	0.0	8.0
1/21/2025 9:45	1.8	76.2	0.0	7.1	12.4	0.0	1/21/2025 9:45	2.8	84.4	0.0	7.1	13.0	0.0	8.0
1/21/2025 10:00	1.9	77.4	0.0	7.1	12.4	0.0	1/21/2025 10:00	2.8	85.4	0.0	7.1	12.9	0.0	8.0
1/21/2025 10:15	1.9	79.4	0.0	7.1	12.4	0.0	1/21/2025 10:15	2.9	87.8	0.0	7.0	12.9	0.0	8.0
1/21/2025 10:30	1.9	80.3	0.0	7.1	12.4	0.0	1/21/2025 10:30	2.9	92.2	0.0	7.0	12.8	0.0	8.0
1/21/2025 10:45	1.9	82.5	0.0	7.1	12.4	0.0	1/21/2025 10:45	3.0	94.9	0.0	7.0	12.8	0.0	8.0
1/21/2025 11:00	2.0	86.2	0.0	7.1	12.3	0.0	1/21/2025 11:00	3.0	98.5	0.0	7.0	12.7	0.0	8.0
1/21/2025 11:15	2.1	88.1	0.0	7.0	12.3	0.0	1/21/2025 11:15	3.1	97.3	0.0	6.9	12.7	0.0	8.0
1/21/2025 11:30	2.1	88.4	0.0	7.0	12.3	0.0	1/21/2025 11:30	3.1	97.2	0.0	6.9	12.8	0.0	8.0
1/21/2025 11:45	2.1	88.7	0.0	7.1	12.4	0.0	1/21/2025 11:45	3.1	96.7	0.0	6.9	12.8	0.0	8.0
1/21/2025 12:00	2.1	88.3	0.0	7.1	12.4	0.0	1/21/2025 12:00	3.1	95.7	0.0	7.0	12.9	0.0	8.0
1/21/2025 12:15	2.2	88.4	0.0	7.1	12.4	0.0	1/21/2025 12:15	3.2	97.2	0.0	6.9	12.9	0.0	8.0
1/21/2025 12:30	2.3	91.0	0.0	7.1	12.4	0.0	1/21/2025 12:30	3.3	103.3	0.0	6.9	12.8	0.0	8.0
1/21/2025 12:45	2.3	93.8	0.0	7.0	12.4	0.0	1/21/2025 12:45	3.4	106.9	0.0	6.9	12.8	0.0	8.0
1/21/2025 13:00		95.0	0.1	7.0	12.3	0.0	1/21/2025 13:00	3.5	106.4	0.0	6.9	12.8	0.0	8.0
1/21/2025 13:15	2.5	95.5	0.1	7.0	12.3	0.0	1/21/2025 13:15	3.6	106.5	0.0	6.9	12.8	0.0	8.0
1/21/2025 13:30	2.6	96.5	0.1	7.0	12.3	0.0	1/21/2025 13:30	3.7	108.6	0.0	6.9	12.8	0.0	8.0
1/21/2025 13:45	2.7	98.6	0.1	7.0	12.2	0.0	1/21/2025 13:45	3.8	113.2	0.1	6.8	12.7	0.0	8.0
1/21/2025 14:00	2.8	99.8	0.1	7.0	12.2	0.0	1/21/2025 14:00	3.9	113.3	0.1	6.8	12.6	0.0	8.0
1/21/2025 14:15	2.8	99.6	0.1	7.0	12.2	0.0	1/21/2025 14:15	3.8	4.7	0.0	6.9	13.2	0.0	8.0
1/21/2025 14:30	2.9	98.4	0.1	7.0	12.1	0.0	1/21/2025 14:30	3.4	5.2	0.0	7.0	13.4	0.0	8.0
1/21/2025 14:45	2.9	96.7	0.1	7.0	12.1	0.0	1/21/2025 14:45	3.2	5.2	0.0	6.9	13.5	0.0	8.0
1/21/2025 15:00	2.9	93.4	0.0	7.0	12.2	0.0	1/21/2025 15:00	2.9	4.9	0.0	7.0	13.6	0.0	8.0
1/21/2025 15:15	2.9	90.4	0.0	7.0	12.2	0.0	1/21/2025 15:15	2.8	5.2	0.0	7.0	13.7	0.0	8.0
1/21/2025 15:30	3.0	90.1	0.0	6.8	12.1	0.0	1/21/2025 15:30	2.8	5.2	0.0	7.0	13.7	0.0	8.0
1/21/2025 15:45	3.0	89.1	0.0	6.7	11.7	0.0	1/21/2025 15:45	2.8	5.2	0.0	7.0	13.7	0.0	8.0
1/21/2025 16:00	3.0	87.4	0.0	6.6	11.6	0.0	1/21/2025 16:00	2.9	4.9	0.0	7.1	13.6	0.0	8.0
1/21/2025 16:15	3.0	86.8	0.0	6.7	11.6	0.0	1/21/2025 16:15	3.2	5.1	0.0	7.1	13.5	0.0	8.0
1/21/2025 16:30	3.0	86.0	0.0	6.7	11.7	0.0	1/21/2025 16:30	3.4	5.1	0.0	7.0	13.5	0.0	8.0
1/21/2025 16:45	3.0	85.8	0.0	6.7	11.6	0.0	1/21/2025 16:45	3.1	5.2	0.0	7.0	13.5	0.0	8.0
1/21/2025 17:00	3.0	85.2	0.0	6.6	11.5	0.0	1/21/2025 17:00	2.9	5.0	0.0	7.0	13.6	0.0	8.0
1/21/2025 17:15	2.9	84.9	0.0	6.7	11.6	0.0	1/21/2025 17:15	2.7	5.3	0.0	7.0	13.7	0.0	8.0
1/21/2025 17:30	2.8	84.5	0.0	6.7	11.9	0.0	1/21/2025 17:30	2.5	5.3	0.0	7.0	13.8	0.0	8.0
1/21/2025 17:45	2.8	84.2	0.0	6.8	11.9	0.0	1/21/2025 17:45	2.3	5.2	0.0	7.0	13.9	0.0	8.0
1/21/2025 18:00	2.8	84.0	0.0	6.8	11.8	0.0	1/21/2025 18:00	2.1	5.2	0.0	7.0	13.9	0.0	8.0
1/21/2025 18:15	2.7	83.8	0.0	6.8	11.9	0.0	1/21/2025 18:15	2.0	5.4	0.0	7.0	14.0	0.0	8.0
1/21/2025 18:30	2.7	83.6	0.0	6.7	11.8	0.0	1/21/2025 18:30	1.8	5.4	0.0	7.0	14.1	0.0	8.0
1/21/2025 18:45	2.7	83.8	0.0	6.7	11.8	0.0	1/21/2025 18:45	1.6	5.5	0.0	7.0	14.1	0.0	8.0
1/21/2025 19:00	2.6	83.8	0.0	6.8	11.7	0.0	1/21/2025 19:00	1.4	5.0	0.0	7.0	14.2	0.0	8.0
1/21/2025 19:15	2.6	84.0	0.0	6.7	11.5	0.0	1/21/2025 19:15	1.2	5.4	0.0	7.0	14.3	0.0	8.0
1/21/2025 19:30	2.5	83.7	0.0	6.7	11.7	0.0	1/21/2025 19:30	0.9	5.5	0.0	7.0	14.4	0.0	8.0
1/21/2025 19:45	2.5	83.7	0.0	6.8	12.0	0.0	1/21/2025 19:45	0.7	5.6	0.0	6.9	14.5	0.0	8.0
1/21/2025 20:00	2.5	83.8	0.0	6.8	11.9	0.0	1/21/2025 20:00	0.7	5.5	0.0	7.2	14.5	0.0	8.0
1/21/2025 20:15	2.4	83.7	0.0	6.8	11.8	0.0	1/21/2025 20:15	0.6	5.5	0.0	7.1	14.6	0.0	8.0
1/21/2025 20:30	2.4	83.6	0.0	6.8	12.0	0.0	1/21/2025 20:30	0.5	5.5	0.0	7.1	14.6	0.0	8.0
1/21/2025 20:45	2.4	83.6	0.0	6.7	11.9	0.0	1/21/2025 20:45	0.4	5.4	0.0	7.1	14.7	0.0	8.0
1/21/2025 21:00	2.4	83.7	0.0	6.8	11.9	0.0	1/21/2025 21:00	0.7	5.4	0.0	7.0	14.6	0.0	8.0
1/21/2025 21:15	2.3	83.7	0.0	6.8	11.9	0.0	1/21/2025 21:15	1.0	5.4	0.0	7.1	14.4	0.0	8.0
1/21/2025 21:30	2.3	83.8	0.0	6.7	11.8	0.0	1/21/2025 21:30	1.0	5.3	0.0	7.0	14.4	0.0	8.0
1/21/2025 21:45	2.3	83.9	0.0	6.7	11.8	0.0	1/21/2025 21:45	1.0	12.3	0.0	6.9	14.4	0.0	8.0
1/21/2025 22:00	2.3	83.9	0.0	6.7	11.8	0.0	1/21/2025 22:00	0.9	12.3	0.0	7.0	14.6	386.7	391.7
1/21/2025 22:15	2.3	83.9	0.0	6.7	11.7	0.0	1/21/2025 22:15	0.9	13.4	0.0	7.0	14.6	449.6	454.6
1/21/2025 22:30	2.3	84.0	0.0	6.7	11.7	0.0	1/21/2025 22:30	0.9	14.1	0.0	6.9	14.7	404.9	409.9
1/21/2025 22:45	2.2	83.5	0.0	6.7	11.9	0.0	1/21/2025 22:45	0.9	13.9	0.0	7.0	14.7	406.4	411.4
1/21/2025 23:00	2.3	83.5	0.0	6.8	12.1	0.0	1/21/2025 23:00	0.8	12.1	0.0	7.0	14.7	144.7	149.7
1/21/2025 23:15	2.3	83.4	0.0	6.8	12.1	0.0	1/21/2025 23:15	0.8	12.8	0.0	7.0	14.7	120.8	125.8
1/21/2025 23:30	2.2	83.3	0.0	6.8	12.1	0.0	1/21/2025 23:30	0.8	7.3	0.0	7.0	14.6	125.8	130.8
1/21/2025 23:45	2.2	83.4	0.0	6.8	12.0	0.0	1/21/2025 23:45	0.7	5.5	0.0	7.0	14.6	168.2	173.2
1/22/2025 0:00	2.2	83.7	0.0	6.7	11.8	0.0	1/22/2025 0:00	0.7	5.1	0.0	6.9	14.6	200.8	205.8
1/22/2025 0:15	2.2	83.3	0.0	6.7	11.9	0.0	1/22/2025 0:15	0.6	5.6	0.0	6.7	14.7	220.5	225.5
1/22/2025 0:30	2.1	82.9	0.0	6.8	12.1	0.0	1/22/2025 0:30	0.5	6.3	0.0	6.6	14.7	213.1	218.1
1/22/2025 0:45	2.0	82.6	0.0	6.9	12.2	0.0	1/22/2025 0:45	0.4	0.0	0.0	6.6	14.7	234.3	239.3
1/22/2025 1:00	2.1	82.4	0.0	6.9	12.3	0.0	1/22/2025 1:00	0.3	0.0	0.0	6.7	14.7	234.8	239.8
1/22/2025 1:15	2.0	82.4	0.0	6.9	12.3	0.0	1/22/2025 1:15	0.2	0.0	0.0	6.6	14.8	222.8	227.8
1/22/2025 1:30	2.0	82.4	0.0	6.9	12.3	0.0	1/22/2025 1:30	0.0	0.0	0.0	6.6	14.8	210.2	215.2
1/22/2025 1:45	1.9	82.1	0.0	7.0	12.3	0.0	1/22/2025 1:45	0.0	0.0	0.0	6.5	14.8	152.6	157.6
1/22/2025 2:00	1.9	82.0	0.0	6.9	12.3	0.0	1/22/2025 2:00	-0.1	0.0	0.0	6.0	14.9	98.5	103.5
1/22/2025 2:15	1.9	82.0	0.0	6.9	12.3	0.0	1/22/2025 2:15	-0.2	0.0	0.0	6.2	14.9	49.9	54.9
1/22/2025 2:30	1.8	81.7	0.0	7.0	12.4	0.0	1/22/2025 2:30	-0.3	0.0	0.0	6.1	14.9	15.0	20.0
1/22/2025 2:45	1.8	81.7	0.0	7.0	12.4	0.0	1/22/2025 2:45	-0.3	0.0	0.0	6.1	15.0	8.4	13.4
1/22/2025 3:00	1.8	81.6	0.0	7.0	12.4	0.0	1/22/2025 3:00	-0.4	0.0	0.0	6.2	15.0	4.0	12.0
1/22/2025 3:15	1.9	81.6	0.0	7.0	12.4	0.0	1/22/2025 3:15	-0.6	0.0	0.0	6.1	15.0	2.1	10.1
1/22/2025 3:30	1.9	81.5	0.0	6.9	12.3	0.0	1/22/2025 3:30	-0.7	0.0	0.0	6.0	15.1	0.2	8.2
1/22/2025 3:45	1.8	81.4	0.0	6.9	12.4	0.0	1/22/2025 3:45	-0.7	0.0	0.0	6.1	15.1	0.0	8.0
1/22/2025 4:00	1.8	81.6	0.0	6.9	12.3	0.0	1/22/2025 4:00	-0.8	0.0	0.0	6.1	15.2	0.0	8.0
1/22/2025 4:15	1.8	81.5	0.0	6.9	12.3	0.0	1/22/2025 4:15	-0.8	0.0	0.0	6.0	15.2	0.0	8.0
1/22/2025 4:30	1.8	81.7	0.0	6.9	12.3	0.0	1/22/2025 4:30	-0.9	0.0	0.0	6.0	15.2	0.0	8.0
1/22/2025 4:45	1.8	81.6	0.0	6.9	12.3	0.0	1/22/2025 4:45	-0.9	0.0	0.0	5.9	15.2	0.0	8.0
1/22/2025 5:00	1.8	81.5	0.0	6.9	12.3	0.0	1/22/2025 5:00	-1.0	0.0	0.0	5.7	15.3	0.0	8.0
1/22/2025 5:15	1.8	81.8	0.0	6.8	12.2	0.0	1/22/2025 5:15	-1.0	0.0	0.0	5.6	15.3	0.0	8.0
1/22/2025 5:30	1.8	81.6	0.0	6.8	12.1	0.0	1/22/2025 5:30	-1.1	0.0	0.0	5.4	15.3	0.0	8.0
1/22/2025 5:45	1.7	81.9	0.0	6.7	11.9	0.0	1/22/2025 5:45	-1.2	0.0	0.0	5.3	15.4	0.0	8.0
1/22/2025 6:00	1.7	81.5	0.0	6.8	12.1	0.0	1/22/2025 6:00	-1.2	0.0	0.0	5.2	15.4	0.0	8.0
1/22/2025 6:15	1.7	81.4	0.0	6.8	12.4	0.0	1/22/2025 6:15	-1.2	0.0	0.0	5.1	15.4	0.0	8.0
1/22/2025 6:30	1.7	81.1	0.0	6.9	12.4	0.0	1/22/2025 6:30	-1.3	0.0	0.0	5.1	15.5	0.0	8.0
1/22/2025 6:45	1.7	80.9	0.0	6.9	12.4	0.0	1/22/2025 6:45	-1.3	0.0	0.0	5.1	15.5	0.0	8.0
1/22/2025 7:00	1.6	80.8	0.0	7.0	12.4	0.0	1/22/2025 7:00	-1.4	0.0	0.0	5.1	15.5	0.0	8.0
1/22/2025 7:15	1.6	80.7	0.0	7.0	12.4	0.0	1/22/2025 7:15	-1.4	0.0	0.0	5.1	15.5	0.0	8.0
1/22/2025 7:30	1.6	80.6	0.0	7.0	12.5	0.0	1/22/2025 7:30	-1.3	0.0	0.0	5.1	15.5	0.0	8.0
1/22/2025 7:45	1.6	80.5	0.0	6.9	12.4	0.0	1/22/2025 7:45	-1.4	0.0	0.0	5.0	15.5	0.0	8.0
1/22/2025 8:00	1.6	80.8	0.0	6.9	12.4	0.0	1/22/2025 8:00	-1.4	0.0	0.0	5.0	15.5	0.0	8.0
1/22/2025 8:15	1.6	80.6	0.0	6.9	12.5	0.0	1/22/2025 8:15	-1.4	0.0	0.0	5.0	15.6	0.0	8.0
1/22/2025 8:30	1.6	80.3	0.0	7.0	12.4	0.0	1/22/2025 8:30	-1.4	0.0	0.0	5.0	15.6	0.0	8.0
1/22/2025 8:45	1.6	80.2	0.0	7.0	12.5	0.0	1/22/2025 8:45	-0.5	0.0	0.0		15.0	0.0	8.0
1/22/2025 9:00	1.6	81.5	0.0	7.0	12.5	0.0	1/22/2025 9:00	2.1	89.9	0.0	5.1	13.2	0.0	8.0
1/22/2025 9:15	1.5	80.0	0.0	7.0	12.5	0.0	1/22/2025 9:15	2.3	89.0	0.0	7.3	13.1	0.0	8.0
1/22/2025 9:30	1.5	80.3	0.0	7.0	12.5	0.0	1/22/2025 9:30	2.4	88.3	0.0	7.4	13.1	0.0	8.0
1/22/2025 9:45	1.5	79.1	0.0	7.0	12.5	0.0	1/22/2025 9:45	2.3	88.0	0.0	7.3	13.1	0.0	8.0
1/22/2025 10:00	1.5	79.2	0.0	7.0	12.5	0.0	1/22/2025 10:00	2.4	87.5	0.0	7.3	13.1	0.0	8.0
1/22/2025 10:15	1.5	78.8	0.0	7.0	12.5	0.0	1/22/2025 10:15	2.4	86.9	0.0	7.3	13.1	0.0	8.0
1/22/2025 10:30	1.5	78.5	0.0	7.0	12.6	0.0	1/22/2025 10:30	2.5	86.6	0.0	7.3	13.1	0.0	8.0
1/22/2025 10:45	1.5	78.3	0.0	7.0	12.6	0.0	1/22/2025 10:45	2.5	86.6	0.0	7.3	13.1	0.0	8.0
1/22/2025 11:00	1.5	78.2	0.0	7.0	12.6	0.0	1/22/2025 11:00	2.5	86.7	0.0	7.3	13.2	0.0	8.0
1/22/2025 11:15	1.5	78.2	0.0	7.0	12.6	0.0	1/22/2025 11:15	2.6	87.3	0.0	7.2	13.2	0.0	8.0
1/22/2025 11:30	1.6	78.2	0.0	7.1	12.6	0.0	1/22/2025 11:30	2.6	89.0	0.0	7.2	13.1	0.0	8.0
1/22/2025 11:45	1.6	78.8	0.0	7.0	12.6	0.0	1/22/2025 11:45	2.7	89.1	0.0	7.2	13.1	0.0	8.0
1/22/2025 12:00	1.7	79.4	0.0	7.0	12.6	0.0	1/22/2025 12:00	2.7	88.0	0.0	7.2	13.2	0.0	8.0
1/22/2025 12:15	1.7	79.5	0.0	7.0	12.6	0.0	1/22/2025 12:15	2.8	88.3	0.0	7.2	13.2	0.0	8.0
1/22/2025 12:30	1.7	79.1	0.0	7.0	12.7	0.0	1/22/2025 12:30	2.8	89.6	0.0	7.2	13.2	0.0	8.0
1/22/2025 12:45	1.8	80.1	0.0	7.0	12.7	0.0	1/22/2025 12:45	2.9	91.0	0.0	7.2	13.1	0.0	8.0
1/22/2025 13:00	1.9	80.9	0.0	7.0	12.7	0.0	1/22/2025 13:00	3.0	93.4	0.0	7.2	13.1	0.0	8.0
1/22/2025 13:15	2.0	83.4	0.0	7.0	12.6	0.0	1/22/2025 13:15	3.1	95.9	0.0	7.2	13.0	0.0	8.0
1/22/2025 13:30	2.1	85.1	0.0	7.0	12.6	0.0	1/22/2025 13:30	3.3	103.9	0.0	7.1	12.9	0.0	8.0
1/22/2025 13:45	2.2	88.8	0.0	6.9	12.5	0.0	1/22/2025 13:45	3.5	109.2	0.0	7.1	12.7	0.0	8.0
1/22/2025 14:00	2.3	90.3	0.0	7.0	12.5	0.0	1/22/2025 14:00	3.5	110.5	0.1	7.0	12.7	0.0	8.0
1/22/2025 14:15	2.3	92.5	0.0	6.9	12.4	0.0	1/22/2025 14:15	3.3	5.5	0.0	7.2	13.6	0.0	8.0
1/22/2025 14:30	2.3	93.0	0.0	6.9	12.4	0.0	1/22/2025 14:30	3.1	5.5	0.0	7.3	13.6	0.0	8.0
1/22/2025 14:45	2.3	89.5	0.0	6.9	12.4	0.0	1/22/2025 14:45	2.9	5.6	0.0	7.3	13.7	0.0	8.0
1/22/2025 15:00	2.4	87.9	0.0	6.8	12.3	0.0	1/22/2025 15:00	2.8	5.7	0.0	7.3	13.8	0.0	8.0
1/22/2025 15:15	2.3	85.7	0.0	6.8	12.4	0.0	1/22/2025 15:15	2.7	5.7	0.0	7.3	13.8	0.0	8.0
1/22/2025 15:30	2.4	85.6	0.0	6.7	12.0	0.0	1/22/2025 15:30	2.6	5.7	0.0	7.3	13.8	0.0	8.0
1/22/2025 15:45	2.4	84.5	0.0	6.7	11.9	0.0	1/22/2025 15:45	2.6	5.7	0.0	7.3	13.8	0.0	8.0
1/22/2025 16:00	2.3	83.8	0.0	6.7	12.1	0.0	1/22/2025 16:00	2.6	5.7	0.0	7.4	13.8	0.0	8.0
1/22/2025 16:15	2.3	83.0	0.0	6.7	12.0	0.0	1/22/2025 16:15	2.6	5.7	0.0	7.3	13.8	0.0	8.0
1/22/2025 16:30	2.3	82.7	0.0	6.8	12.2	0.0	1/22/2025 16:30	2.7	5.7	0.0	7.3	13.8	0.0	8.0
1/22/2025 16:45	2.4	82.7	0.0	6.8	12.3	0.0	1/22/2025 16:45	2.7	5.7	0.0	7.3	13.8	0.0	8.0
1/22/2025 17:00	2.4	82.9	0.0	6.8	12.4	0.0	1/22/2025 17:00	2.7	5.6	0.0	7.3	13.8	0.0	8.0
1/22/2025 17:15	2.4	83.0	0.0	6.8	12.3	0.0	1/22/2025 17:15	2.6	5.6	0.0	7.3	13.8	0.0	8.0
1/22/2025 17:30	2.4	82.9	0.0	6.8	12.2	0.0	1/22/2025 17:30	2.6	5.6	0.0	7.3	13.8	0.0	8.0
1/22/2025 17:45	2.4	83.1	0.0	6.8	12.3	0.0	1/22/2025 17:45	2.4	5.6	0.0	7.2	13.9	0.0	8.0

1/22/2025 18:00	2.4	83.1	0.0	6.8	12.2	0.0	1/22/2025 18:00	2.3	5.6	0.0	7.4	13.9	0.0	8.0
1/22/2025 18:15	2.4	83.0	0.0	6.8	12.3	0.0	1/22/2025 18:15	2.2	5.6	0.0	7.3	14.0	0.0	8.0
1/22/2025 18:30	2.4	82.9	0.0	6.7	12.2	0.0	1/22/2025 18:30	2.1	5.6	0.0	7.3	14.0	0.0	8.0
1/22/2025 18:45	2.4	83.0	0.0	6.8	12.2	0.0	1/22/2025 18:45	2.0	5.6	0.0	7.3	14.0	0.0	8.0
1/22/2025 19:00	2.4	82.8	0.0	6.8	12.2	0.0	1/22/2025 19:00	1.9	5.5	0.0	7.3	14.0	0.0	8.0
1/22/2025 19:15	2.4	83.0	0.0	6.8	12.2	0.0	1/22/2025 19:15	1.9	5.6	0.0	7.3	14.1	0.0	8.0
1/22/2025 19:30	2.4	83.0	0.0	6.8	12.2	0.0	1/22/2025 19:30	1.8	5.5	0.0	7.3	14.1	0.0	8.0
1/22/2025 19:45	2.3	83.0	0.0	6.9	12.3	0.0	1/22/2025 19:45	1.7	5.6	0.0	7.3	14.2	0.0	8.0
1/22/2025 20:00	2.3	83.0	0.0	6.9	12.3	0.0	1/22/2025 20:00	1.6	5.6	0.0	7.3	14.2	0.0	8.0
1/22/2025 20:15	2.3	83.0	0.0	6.9	12.3	0.0	1/22/2025 20:15	1.5	5.5	0.0	7.3	14.2	0.0	8.0
1/22/2025 20:30	2.3	83.2	0.0	6.9	12.3	0.0	1/22/2025 20:30	1.5	5.5	0.0	7.3	14.2	0.0	8.0
1/22/2025 20:45	2.3	83.3	0.0	6.9	12.3	0.0	1/22/2025 20:45	1.4	5.2	0.0	7.3	14.2	0.0	8.0
1/22/2025 21:00	2.3	83.4	0.0	6.9	12.3	0.0	1/22/2025 21:00	1.4	5.4	0.0	7.2	14.3	0.0	8.0
1/22/2025 21:15	2.3	83.5	0.0	6.9	12.3	0.0	1/22/2025 21:15	1.3	5.5	0.0	7.2	14.3	0.0	8.0
1/22/2025 21:30	2.3	83.7	0.0	6.9	12.2	0.0	1/22/2025 21:30	1.2	5.4	0.0	7.2	14.3	0.0	8.0
1/22/2025 21:45	2.3	83.7	0.0	6.9	12.3	0.0	1/22/2025 21:45	1.2	5.4	0.0	7.2	14.3	0.0	8.0
1/22/2025 22:00	2.3	83.8	0.0	6.9	12.3	0.0	1/22/2025 22:00	1.1	5.4	0.0	7.4	14.4	0.0	8.0
1/22/2025 22:15	2.3	84.1	0.0	6.9	12.2	0.0	1/22/2025 22:15	1.1	5.3	0.0	7.3	14.4	0.0	8.0
1/22/2025 22:30	2.3	84.0	0.0	6.9	12.2	0.0	1/22/2025 22:30	1.0	5.3	0.0	7.2	14.4	0.0	8.0
1/22/2025 22:45	2.3	84.1	0.0	6.9	12.3	0.0	1/22/2025 22:45	0.9	5.3	0.0	7.3	14.5	0.0	8.0
1/22/2025 23:00	2.3	84.2	0.0	6.9	12.3	0.0	1/22/2025 23:00	0.8	5.4	0.0	7.2	14.5	0.0	8.0
1/22/2025 23:15	2.2	84.2	0.0	6.9	12.3	0.0	1/22/2025 23:15	0.7	5.3	0.0	7.1	14.5	0.0	8.0
1/22/2025 23:30	2.2	84.4	0.0	6.9	12.3	0.0	1/22/2025 23:30	0.6	5.4	0.0	7.2	14.6	0.0	8.0
1/22/2025 23:45	2.2	84.3	0.0	6.9	12.3	0.0	1/22/2025 23:45	0.5	5.3	0.0	7.2	14.6	0.0	8.0
1/23/2025 0:00	2.2	84.4	0.0	6.9	12.2	0.0	1/23/2025 0:00	0.5	5.3	0.0	7.3	14.6	0.0	8.0
1/23/2025 0:15	2.2	84.5	0.0	6.9	12.2	0.0	1/23/2025 0:15	0.4	5.3	0.0	7.3	14.6	0.0	8.0
1/23/2025 0:30	2.2	84.5	0.0	6.9	12.3	0.0	1/23/2025 0:30	0.4	5.2	0.0	7.3	14.7	0.0	8.0
1/23/2025 0:45	2.2	84.5	0.0	6.9	12.3	0.0	1/23/2025 0:45	0.3	4.9	0.0	7.3	14.7	0.0	8.0
1/23/2025 1:00	2.1	84.4	0.0	6.9	12.2	0.0	1/23/2025 1:00	0.2	5.3	0.0	7.2	14.7	0.0	8.0
1/23/2025 1:15	2.1	84.3	0.0	6.9	12.3	0.0	1/23/2025 1:15	0.2	5.2	0.0	7.2	14.7	0.0	8.0
1/23/2025 1:30	2.1	84.0	0.0	6.9	12.3	0.0	1/23/2025 1:30	0.2	5.2	0.0	7.2	14.7	0.0	8.0
1/23/2025 1:45	2.1	83.8	0.0	7.0	12.4	0.0	1/23/2025 1:45	0.1	5.4	0.0	7.2	14.8	0.0	8.0
1/23/2025 2:00	2.0	83.4	0.0	7.0	12.3	0.0	1/23/2025 2:00	0.0	5.2	0.0	7.3	14.8	0.0	8.0
1/23/2025 2:15	2.0	83.3	0.0	6.9	12.3	0.0	1/23/2025 2:15	1.0	11.9	0.0	7.2	14.6	0.0	8.0
1/23/2025 2:30	2.0	83.0	0.0	7.0	12.3	0.0	1/23/2025 2:30	1.0	9.8	0.0	7.2	14.5	0.0	8.0
1/23/2025 2:45	2.0	83.0	0.0	7.0	12.3	0.0	1/23/2025 2:45	1.0	8.0	0.0	7.2	14.5	0.0	8.0
1/23/2025 3:00	2.0	82.6	0.0	7.0	12.3	0.0	1/23/2025 3:00	0.9	12.9	0.0	7.2	14.8	0.0	8.0
1/23/2025 3:15	1.9	82.1	0.0	7.0	12.4	0.0	1/23/2025 3:15	0.8	14.7	0.0	7.2	14.9	0.0	8.0
1/23/2025 3:30	2.0	82.0	0.0	7.0	12.4	0.0	1/23/2025 3:30	0.7	15.1	0.0	6.9	14.8	0.0	8.0
1/23/2025 3:45	2.0	82.2	0.0	7.0	12.4	0.0	1/23/2025 3:45	0.9	4.1	0.0	7.0	14.8	0.0	8.0
1/23/2025 4:00	2.0	82.3	0.0	7.0	12.4	0.0	1/23/2025 4:00	0.6	5.6	0.0	7.3	14.8	0.0	8.0
1/23/2025 4:15	2.0	82.2	0.0	7.0	12.4	0.0	1/23/2025 4:15	0.7	5.5	0.0	6.8	14.8	0.0	8.0
1/23/2025 4:30	2.0	82.4	0.0	7.0	12.4	0.0	1/23/2025 4:30	0.7	5.6	0.0	6.7	14.8	0.0	8.0
1/23/2025 4:45	1.9	82.3	0.0	7.0	12.4	0.0	1/23/2025 4:45	0.8	5.7	0.0	6.6	14.7	0.0	8.0
1/23/2025 5:00	1.9	82.1	0.0	7.0	12.4	0.0	1/23/2025 5:00	0.6	6.0	0.0	6.5	14.8	0.0	8.0
1/23/2025 5:15	1.9	82.6	0.0	7.0	12.4	0.0	1/23/2025 5:15	0.5	6.3	0.0	6.6	14.8	0.0	8.0
1/23/2025 5:30	2.0	82.9	0.0	7.0	12.3	0.0	1/23/2025 5:30	0.5	6.3	0.0	6.7	14.7	0.0	8.0
1/23/2025 5:45	1.9	82.3	0.0	7.0	12.3	0.0	1/23/2025 5:45	0.4	0.0	0.0	6.7	14.8	0.0	8.0
1/23/2025 6:00	1.9	81.9	0.0	7.0	12.4	0.0	1/23/2025 6:00	0.2	0.0	0.0	6.7	14.8	0.0	8.0
1/23/2025 6:15	1.9	82.4	0.0	7.0	12.4	0.0	1/23/2025 6:15	0.0	0.0	0.0	6.8	14.9	0.0	8.0
1/23/2025 6:30	2.0	82.7	0.0	7.0	12.4	0.0	1/23/2025 6:30	-0.3	0.0	0.0	6.8	14.9	0.0	8.0
1/23/2025 6:45	1.9	82.7	0.0	7.0	12.3	0.0	1/23/2025 6:45	-0.4	0.0	0.0	6.6	14.9	0.0	8.0
1/23/2025 7:00	1.9	82.0	0.0	7.0	12.3	0.0	1/23/2025 7:00	-0.6	0.0	0.0	6.6	15.0	0.0	8.0
1/23/2025 7:15	1.9	81.7	0.0	7.0	12.3	0.0	1/23/2025 7:15	-0.6	0.0	0.0	6.4	15.0	0.0	8.0
1/23/2025 7:30	1.9	81.6	0.0	7.0	12.4	0.0	1/23/2025 7:30	-0.6	0.0	0.0	6.3	15.1	0.0	8.0
1/23/2025 7:45	1.9	82.5	0.0	7.0	12.3	0.0	1/23/2025 7:45	-0.7	0.0	0.0	5.8	15.1	0.0	8.0
1/23/2025 8:00	1.9	82.3	0.0	7.0	12.3	0.0	1/23/2025 8:00	0.9	9.8	0.0	5.8	13.9	0.0	8.0
1/23/2025 8:15	1.8	81.6	0.0	7.0	12.4	0.0	1/23/2025 8:15	1.0	4.9	0.0	6.9	14.4	0.0	8.0
1/23/2025 8:30	1.8	81.2	0.0	7.0	12.4	0.0	1/23/2025 8:30	1.2	61.6	0.0	6.9	13.7	0.0	8.0
1/23/2025 8:45	1.8	81.4	0.0	7.0	12.4	0.0	1/23/2025 8:45	2.4	91.2	0.0	7.0	13.1	0.0	8.0
1/23/2025 9:00	1.8	81.5	0.0	7.0	12.4	0.0	1/23/2025 9:00	2.6	90.0	0.0	7.0	13.0	0.0	8.0
1/23/2025 9:15	1.8	81.1	0.0	7.0	12.4	0.0	1/23/2025 9:15	2.6	89.3	0.0	7.1	12.9	0.0	8.0
1/23/2025 9:30	1.8	80.9	0.0	7.0	12.4	0.0	1/23/2025 9:30	2.7	88.5	0.0	7.1	12.9	0.0	8.0
1/23/2025 9:45	1.8	80.5	0.0	7.0	12.4	0.0	1/23/2025 9:45	2.7	88.7	0.0	7.1	12.9	0.0	8.0
1/23/2025 10:00	1.8	80.5	0.0	7.0	12.4	0.0	1/23/2025 10:00	2.7	88.6	0.0	7.1	12.9	0.0	8.0
1/23/2025 10:15	1.8	80.4	0.0	7.0	12.4	0.0	1/23/2025 10:15	2.7	87.5	0.0	7.1	13.0	0.0	8.0
1/23/2025 10:30	1.8	79.8	0.0	7.0	12.4	0.0	1/23/2025 10:30	2.8	88.7	0.0	7.1	13.0	0.0	8.0
1/23/2025 10:45	1.8	79.9	0.0	7.0	12.4	0.0	1/23/2025 10:45	2.8	89.0	0.0	7.1	12.9	0.0	8.0
1/23/2025 11:00	1.8	80.5	0.0	7.0	12.4	0.0	1/23/2025 11:00	2.8	87.7	0.0	7.1	13.0	0.0	8.0
1/23/2025 11:15	1.8	79.9	0.0	7.0	12.5	0.0	1/23/2025 11:15	2.8	87.0	0.0	7.1	13.1	0.0	8.0
1/23/2025 11:30	1.9	79.5	0.0	7.0	12.5	0.0	1/23/2025 11:30	3.0	91.3	0.0	7.1	13.0	0.0	8.0
1/23/2025 11:45	1.9	80.7	0.0	7.0	12.5	0.0	1/23/2025 11:45	3.0	92.2	0.0	7.0	12.9	0.0	8.0
1/23/2025 12:00	2.0	82.2	0.0	7.0	12.5	0.0	1/23/2025 12:00	3.0	90.3	0.0	7.0	13.0	0.0	8.0
1/23/2025 12:15	2.0	81.5	0.0	7.0	12.5	0.0	1/23/2025 12:15	3.0	88.0	0.0	7.1	13.0	0.0	8.0
1/23/2025 12:30	2.0	80.5	0.0	7.0	12.5	0.0	1/23/2025 12:30	3.1	91.2	0.0	7.0	13.0	0.0	8.0
1/23/2025 12:45	2.0	81.2	0.0	7.0	12.5	0.0	1/23/2025 12:45	3.1	89.8	0.0	7.0	13.0	0.0	8.0
1/23/2025 13:00	2.1	80.7	0.0	7.0	12.5	0.0	1/23/2025 13:00	3.1	88.9	0.0	7.0	13.1	0.0	8.0
1/23/2025 13:15	2.1	80.5	0.0	7.0	12.5	0.0	1/23/2025 13:15	3.2	89.4	0.0	7.0	13.1	0.0	8.0
1/23/2025 13:30	2.1	80.6	0.0	7.0	12.6	0.0	1/23/2025 13:30	3.3	93.3	0.0	7.0	13.0	0.0	8.0
1/23/2025 13:45	2.2	83.8	0.0	7.0	12.5	0.0	1/23/2025 13:45	3.4	95.8	0.0	7.0	12.9	0.0	8.0
1/23/2025 14:00	2.3	86.2	0.0	7.0	12.5	0.0	1/23/2025 14:00	3.6	105.9	0.0	7.0	12.7	0.0	8.0
1/23/2025 14:15	2.4	91.4	0.0	7.0	12.3	0.0	1/23/2025 14:15	3.6	103.7	0.0	6.9	12.7	0.0	8.0
1/23/2025 14:30	2.4	91.2	0.0	6.9	12.3	0.0	1/23/2025 14:30	3.6	106.3	0.0	6.9	12.7	0.0	8.0
1/23/2025 14:45	2.5	91.5	0.0	6.9	12.3	0.0	1/23/2025 14:45	3.4	5.0	0.0	7.1	13.4	0.0	8.0
1/23/2025 15:00	2.5	91.3	0.0	6.9	12.3	0.0	1/23/2025 15:00	3.0	5.1	0.0	7.2	13.6	0.0	8.0
1/23/2025 15:15	2.5	90.7	0.0	6.9	12.3	0.0	1/23/2025 15:15	2.8	5.2	0.0	7.1	13.6	0.0	8.0
1/23/2025 15:30	2.5	89.5	0.0	6.8	12.2	0.0	1/23/2025 15:30	2.7	5.2	0.0	7.1	13.6	0.0	8.0
1/23/2025 15:45	2.5	87.3	0.0	6.8	12.1	0.0	1/23/2025 15:45	2.6	5.2	0.0	7.1	13.7	0.0	8.0
1/23/2025 16:00	2.6	87.4	0.0	6.7	11.8	0.0	1/23/2025 16:00	2.7	5.3	0.0	7.2	13.7	0.0	8.0
1/23/2025 16:15	2.6	87.2	0.0	6.6	11.4	0.0	1/23/2025 16:15	2.8	5.2	0.0	7.2	13.6	0.0	8.0
1/23/2025 16:30	2.7	86.0	0.0	6.6	11.5	0.0	1/23/2025 16:30	3.1	5.1	0.0	7.1	13.5	0.0	8.0
1/23/2025 16:45	2.7	84.6	0.0	6.6	11.4	0.0	1/23/2025 16:45	3.2	5.1	0.0	7.1	13.5	0.0	8.0
1/23/2025 17:00	2.7	83.9	0.0	6.6	11.4	0.0	1/23/2025 17:00	3.2	5.1	0.0	7.2	13.5	0.0	8.0
1/23/2025 17:15	2.6	83.5	0.0	6.6	11.5	0.0	1/23/2025 17:15	3.1	5.1	0.0	7.1	13.5	0.0	8.0
1/23/2025 17:30	2.6	83.3	0.0	6.7	11.9	0.0	1/23/2025 17:30	2.9	5.1	0.0	7.1	13.6	0.0	8.0
1/23/2025 17:45	2.6	83.2	0.0	6.7	11.8	0.0	1/23/2025 17:45	2.7	5.1	0.0	7.1	13.7	0.0	8.0
1/23/2025 18:00	2.6	83.1	0.0	6.7	11.9	0.0	1/23/2025 18:00	2.4	5.2	0.0	7.2	13.8	0.0	8.0
1/23/2025 18:15	2.6	83.1	0.0	6.7	12.0	0.0	1/23/2025 18:15	2.2	5.2	0.0	7.2	13.8	0.0	8.0
1/23/2025 18:30	2.5	83.1	0.0	6.8	11.9	0.0	1/23/2025 18:30	2.0	5.2	0.0	7.2	13.9	0.0	8.0
1/23/2025 18:45	2.5	83.1	0.0	6.8	12.0	0.0	1/23/2025 18:45	1.8	5.2	0.0	7.2	14.0	0.0	8.0
1/23/2025 19:00	2.5	83.1	0.0	6.7	11.7	0.0	1/23/2025 19:00	1.6	5.2	0.0	7.2	14.1	0.0	8.0
1/23/2025 19:15	2.5	83.1	0.0	6.8	12.1	0.0	1/23/2025 19:15	1.4	5.2	0.0	7.2	14.2	0.0	8.0
1/23/2025 19:30	2.5	83.2	0.0	6.8	12.0	0.0	1/23/2025 19:30	1.2	5.2	0.0	7.2	14.2	0.0	8.0
1/23/2025 19:45	2.5	83.2	0.0	6.8	12.0	0.0	1/23/2025 19:45	1.1	5.2	0.0	7.2	14.3	0.0	8.0
1/23/2025 20:00	2.4	83.4	0.0	6.8	12.0	0.0	1/23/2025 20:00	1.0	5.3	0.0	7.2	14.3	0.0	8.0
1/23/2025 20:15	2.4	83.4	0.0	6.7	11.9	0.0	1/23/2025 20:15	0.8	5.3	0.0	7.2	14.4	0.0	8.0
1/23/2025 20:30	2.4	83.4	0.0	6.8	12.0	0.0	1/23/2025 20:30	0.7	5.3	0.0	7.2	14.4	0.0	8.0
1/23/2025 20:45	2.4	83.5	0.0	6.8	12.1	0.0	1/23/2025 20:45	0.9	5.2	0.0	7.2	14.3	0.0	8.0
1/23/2025 21:00	2.4	83.5	0.0	6.9	12.0	0.0	1/23/2025 21:00	1.0	5.2	0.0	7.2	14.3	0.0	8.0
1/23/2025 21:15	2.4	83.7	0.0	6.8	11.8	0.0	1/23/2025 21:15	1.0	9.9	0.0	7.2	14.3	0.0	8.0
1/23/2025 21:30	2.4	84.1	0.0	6.7	11.7	0.0	1/23/2025 21:30	1.0	14.1	0.0	7.2	14.3	0.0	8.0
1/23/2025 21:45	2.3	84.0	0.0	6.7	11.7	0.0	1/23/2025 21:45	0.8	16.7	0.0	7.0	14.4	0.0	8.0
1/23/2025 22:00	2.3	84.1	0.0	6.7	11.7	0.0	1/23/2025 22:00	0.8	18.1	0.0	6.9	14.6	0.0	8.0
1/23/2025 22:15	2.3	84.0	0.0	6.8	12.0	0.0	1/23/2025 22:15	0.7	8.2	0.0	6.8	14.6	0.0	8.0
1/23/2025 22:30	2.3	84.0	0.0	6.8	11.8	0.0	1/23/2025 22:30	0.6	0.0	0.0	6.6	14.6	0.0	8.0
1/23/2025 22:45	2.3	84.0	0.0	6.8	11.9	0.0	1/23/2025 22:45	0.7	6.0	0.0	6.5	14.6	0.0	8.0
1/23/2025 23:00	2.2	84.0	0.0	6.7	11.8	0.0	1/23/2025 23:00	0.5	0.0	0.0	5.9	14.6	0.0	8.0
1/23/2025 23:15	2.2	83.9	0.0	6.8	11.9	0.0	1/23/2025 23:15	0.4	0.0	0.0	5.9	14.6	0.0	8.0
1/23/2025 23:30	2.2	83.8	0.0	6.8	11.9	0.0	1/23/2025 23:30	0.4	0.0	0.0	5.9	14.6	0.0	8.0
1/23/2025 23:45	2.2	83.8	0.0	6.8	11.9	0.0	1/23/2025 23:45	0.2	0.0	0.0	6.2	14.6	0.0	8.0
1/24/2025 0:00	2.2	83.7	0.0	6.8	12.0	0.0	1/24/2025 0:00	0.1	0.0	0.0	6.1	14.7	0.0	8.0
1/24/2025 0:15	2.2	83.6	0.0	6.8	11.9	0.0	1/24/2025 0:15	0.1	0.0	0.0	6.0	14.7	0.0	8.0
1/24/2025 0:30	2.2	83.6	0.0	6.8	12.0	0.0	1/24/2025 0:30	0.0	0.0	0.0	5.8	14.7	0.0	8.0
1/24/2025 0:45	2.1	83.5	0.0	6.9	12.1	0.0	1/24/2025 0:45	-0.1	0.0	0.0	5.7	14.8	0.0	8.0
1/24/2025 1:00	2.1	83.3	0.0	6.8	12.1	0.0	1/24/2025 1:00	-0.2	0.0	0.0	5.8	14.8	0.0	8.0
1/24/2025 1:15	2.1	83.3	0.0	6.9	12.1	0.0	1/24/2025 1:15	-0.3	0.0	0.0	5.7	14.8	0.0	8.0
1/24/2025 1:30	2.1	83.2	0.0	6.9	12.2	0.0	1/24/2025 1:30	-0.4	0.0	0.0	5.8	14.9	0.0	8.0
1/24/2025 1:45	2.1	83.0	0.0	6.9	12.2	0.0	1/24/2025 1:45	-0.5	0.0	0.0	5.9	14.9	0.0	8.0
1/24/2025 2:00	2.0	83.1	0.0	6.9	12.2	0.0	1/24/2025 2:00	-0.6	0.0	0.0	5.9	14.9	0.0	8.0
1/24/2025 2:15	2.0	82.8	0.0	6.9	12.2	0.0	1/24/2025 2:15	-0.7	0.0	0.0	5.9	15.0	0.0	8.0
1/24/2025 2:30	2.0	82.2	0.0	7.0	12.2	0.0	1/24/2025 2:30	-0.6	0.0	0.0	6.0	15.0	0.0	8.0
1/24/2025 2:45	1.9	81.7	0.0	7.0	12.3	0.0	1/24/2025 2:45	2.1	90.8	0.0	0.4	13.2	0.0	8.0
1/24/2025 3:00	1.9	81.1	0.0	7.0	12.3	0.0	1/24/2025 3:00	2.6	90.0	0.0	7.3	13.0	0.0	8.0
1/24/2025 3:15	1.9	80.9	0.0	7.0	12.3	0.0	1/24/2025 3:15	2.7	89.2	0.0	7.3	12.9	0.0	8.0
1/24/2025 3:30	1.8	80.5	0.0	7.0	12.3	0.0	1/24/2025 3:30	2.7	88.5	0.0	7.3	12.9	0.0	8.0
1/24/2025 3:45	1.8	80.3	0.0	7.0	12.3	0.0	1/24/2025 3:45	2.8	88.0	0.0	7.2	12.9	0.0	8.0
1/24/2025 4:00	1.8	80.0	0.0	7.0	12.4	0.0	1/24/2025 4:00	2.8	87.7	0.0	7.1	12.9	0.0	8.0
1/24/2025 4:15	1.8	79.7	0.0	7.0	12.4	0.0	1/24/2025 4:15	2.8	87.3	0.0	7.1	12.9	0.0	8.0

1/24/2025 4:30	1.8	79.3	0.0	7.0	12.4	0.0	1/24/2025 4:30	2.8	87.1	0.0	7.1	12.9	0.0	8.0
1/24/2025 4:45	1.8	79.2	0.0	7.0	12.4	0.0	1/24/2025 4:45	2.8	87.9	0.0	7.1	12.9	0.0	8.0
1/24/2025 5:00	1.8	79.5	0.0	7.0	12.4	0.0	1/24/2025 5:00	2.8	88.6	0.0	7.1	12.8	0.0	8.0
1/24/2025 5:15	1.8	80.3	0.0	7.1	12.4	0.0	1/24/2025 5:15	2.8	90.1	0.0	7.1	12.8	0.0	8.0
1/24/2025 5:30	1.8	80.7	0.0	7.0	12.3	0.0	1/24/2025 5:30	2.8	89.4	0.0	7.1	12.8	0.0	8.0
1/24/2025 5:45	1.8	80.2	0.0	7.0	12.3	0.0	1/24/2025 5:45	2.8	88.7	0.0	7.1	12.8	0.0	8.0
1/24/2025 6:00	1.7	80.0	0.0	7.0	12.4	0.0	1/24/2025 6:00	2.8	91.1	0.0	7.0	12.8	0.0	8.0
1/24/2025 6:15	1.7	80.5	0.0	7.0	12.4	0.0	1/24/2025 6:15	2.8	94.5	0.0	7.1	12.7	0.0	8.0
1/24/2025 6:30	1.8	83.0	0.0	7.0	12.3	0.0	1/24/2025 6:30	2.8	93.9	0.0	7.1	12.7	0.0	8.0
1/24/2025 6:45	1.8	83.5	0.0	7.0	12.3	0.0	1/24/2025 6:45	2.8	91.5	0.0	7.0	12.8	0.0	8.0
1/24/2025 7:00	1.8	83.0	0.0	7.0	12.3	0.0	1/24/2025 7:00	2.8	94.4	0.0	7.0	12.7	0.0	8.0
1/24/2025 7:15	1.7	82.2	0.0	7.0	12.3	0.0	1/24/2025 7:15	2.8	97.2	0.0	6.9	12.6	0.0	8.0
1/24/2025 7:30	1.7	83.5	0.0	7.0	12.3	0.0	1/24/2025 7:30	2.8	95.6	0.0	7.0	12.7	0.0	8.0
1/24/2025 7:45	1.7	84.9	0.0	6.9	12.2	0.0	1/24/2025 7:45	2.7	91.7	0.0	7.0	12.8	0.0	8.0
1/24/2025 8:00	1.7	83.8	0.0	7.0	12.3	0.0	1/24/2025 8:00	2.7	90.4	0.0	7.0	12.8	0.0	8.0
1/24/2025 8:15	1.7	82.8	0.0	7.0	12.3	0.0	1/24/2025 8:15	2.7	91.9	0.0	7.0	12.8	0.0	8.0
1/24/2025 8:30	1.7	82.1	0.0	7.0	12.3	0.0	1/24/2025 8:30	2.7	93.4	0.0	7.0	12.7	0.0	8.0
1/24/2025 8:45	1.7	82.9	0.0	7.0	12.3	0.0	1/24/2025 8:45	2.7	92.4	0.0	7.0	12.8	0.0	8.0
1/24/2025 9:00	1.7	83.0	0.0	7.0	12.3	0.0	1/24/2025 9:00	2.6	91.1	0.0	6.9	12.8	0.0	8.0
1/24/2025 9:15	1.6	82.3	0.0	7.0	12.3	0.0	1/24/2025 9:15	2.6	90.4	0.0	7.0	12.8	0.0	8.0
1/24/2025 9:30	1.6	81.5	0.0	7.0	12.3	0.0	1/24/2025 9:30	2.6	91.6	0.0	7.0	12.8	0.0	8.0
1/24/2025 9:45	1.6	81.7	0.0	7.0	12.3	0.0	1/24/2025 9:45	2.6	92.1	0.0	6.9	12.8	0.0	8.0
1/24/2025 10:00	1.6	82.2	0.0	7.0	12.3	0.0	1/24/2025 10:00	2.6	90.4	0.0	7.1	12.8	0.0	8.0
1/24/2025 10:15	1.6	81.6	0.0	7.0	12.4	0.0	1/24/2025 10:15	2.6	89.6	0.0	7.0	12.9	0.0	8.0
1/24/2025 10:30	1.6	81.1	0.0	7.0	12.4	0.0	1/24/2025 10:30	2.6	88.5	0.0	7.0	12.9	0.0	8.0
1/24/2025 10:45	1.6	80.5	0.0	7.0	12.4	0.0	1/24/2025 10:45	2.6	88.1	0.0	7.0	13.0	0.0	8.0
1/24/2025 11:00	1.6	80.0	0.0	7.0	12.5	0.0	1/24/2025 11:00	2.6	88.2	0.0	7.0	13.0	0.0	8.0
1/24/2025 11:15	1.6	80.7	0.0	7.0	12.4	0.0	1/24/2025 11:15	2.6	87.8	0.0	7.0	13.0	0.0	8.0
1/24/2025 11:30	1.6	79.9	0.0	7.0	12.5	0.0	1/24/2025 11:30	2.7	87.6	0.0	7.0	13.0	0.0	8.0
1/24/2025 11:45	1.6	79.5	0.0	7.0	12.5	0.0	1/24/2025 11:45	2.7	88.2	0.0	7.0	13.1	0.0	8.0
1/24/2025 12:00	1.6	79.5	0.0	7.0	12.5	0.0	1/24/2025 12:00	2.7	88.0	0.0	7.0	13.1	0.0	8.0
1/24/2025 12:15	1.7	79.6	0.0	7.0	12.5	0.0	1/24/2025 12:15	2.8	87.7	0.0	7.0	13.1	0.0	8.0
1/24/2025 12:30	1.7	79.6	0.0	7.1	12.5	0.0	1/24/2025 12:30	2.8	88.1	0.0	7.0	13.1	0.0	8.0
1/24/2025 12:45	1.8	79.5	0.0	7.0	12.6	0.0	1/24/2025 12:45	2.9	88.1	0.0	7.0	13.1	0.0	8.0
1/24/2025 13:00	1.8	79.7	0.0	7.1	12.6	0.0	1/24/2025 13:00	3.0	88.3	0.0	7.0	13.1	0.0	8.0
1/24/2025 13:15	1.9	79.9	0.0	7.0	12.6	0.0	1/24/2025 13:15	3.1	88.9	0.0	7.0	13.1	0.0	8.0
1/24/2025 13:30	2.0	80.2	0.0	7.0	12.6	0.0	1/24/2025 13:30	3.2	90.6	0.0	6.8	13.1	0.0	8.0
1/24/2025 13:45	2.1	81.4	0.0	7.0	12.6	0.0	1/24/2025 13:45	3.3	94.7	0.0	6.9	13.0	0.0	8.0
1/24/2025 14:00	2.2	82.9	0.0	7.0	12.5	0.0	1/24/2025 14:00	3.4	97.2	0.0	7.0	12.9	0.0	8.0
1/24/2025 14:15	2.3	84.9	0.0	7.0	12.5	0.0	1/24/2025 14:15	3.6	101.2	0.0	6.9	12.8	0.0	8.0
1/24/2025 14:30	2.4	87.7	0.0	7.0	12.4	0.0	1/24/2025 14:30	3.7	105.1	0.0	6.9	12.7	0.0	8.0
1/24/2025 14:45	2.5	90.6	0.0	7.0	12.3	0.0	1/24/2025 14:45	3.9	110.9	0.1	6.8	12.6	0.0	8.0
1/24/2025 15:00	2.6	91.7	0.0	6.9	12.3	0.0	1/24/2025 15:00	3.9	4.7	0.0	6.9	13.1	0.0	8.0
1/24/2025 15:15	2.7	95.1	0.1	6.9	12.2	0.0	1/24/2025 15:15	3.7	5.1	0.0	6.9	13.3	0.0	8.0
1/24/2025 15:30	2.7	95.4	0.1	6.9	12.2	0.0	1/24/2025 15:30	3.9	5.1	0.0	6.8	13.2	0.0	8.0
1/24/2025 15:45	2.7	92.1	0.0	6.9	12.2	0.0	1/24/2025 15:45	4.5	5.2	0.0	6.9	13.0	0.0	8.0
1/24/2025 16:00	2.7	89.1	0.0	6.9	12.2	0.0	1/24/2025 16:00	4.9	5.1	0.0	6.8	12.8	0.0	8.0
1/24/2025 16:15	2.7	87.5	0.0	6.9	12.2	0.0	1/24/2025 16:15	5.5	5.0	0.0	6.8	12.7	0.0	8.0
1/24/2025 16:30	2.7	87.3	0.0	6.9	12.2	0.0	1/24/2025 16:30	6.0	4.9	0.0	7.0	12.5	0.0	8.0
1/24/2025 16:45	2.7	87.1	0.0	6.7	11.9	0.0	1/24/2025 16:45	5.9	4.7	0.0	7.0	12.5	0.0	8.0
1/24/2025 17:00	2.7	85.7	0.0	6.6	11.6	0.0	1/24/2025 17:00	5.3	4.9	0.0	6.8	12.7	0.0	8.0
1/24/2025 17:15	2.6	85.2	0.0	6.7	11.9	0.0	1/24/2025 17:15	4.8	4.7	0.0	6.8	12.8	0.0	8.0
1/24/2025 17:30	2.6	84.7	0.0	6.7	11.8	0.0	1/24/2025 17:30	4.4	4.7	0.0	6.6	13.0	0.0	8.0
1/24/2025 17:45	2.5	84.7	0.0	6.8	11.9	0.0	1/24/2025 17:45	3.9	4.7	0.0	6.9	13.2	0.0	8.0
1/24/2025 18:00	2.5	84.5	0.0	6.8	11.9	0.0	1/24/2025 18:00	3.5	5.0	0.0	7.1	13.3	0.0	8.0
1/24/2025 18:15	2.4	84.3	0.0	6.8	12.0	0.0	1/24/2025 18:15	2.9	4.9	0.0	7.0	13.6	0.0	8.0
1/24/2025 18:30	2.4	84.1	0.0	6.8	12.0	0.0	1/24/2025 18:30	2.8	5.0	0.0	6.9	13.6	0.0	8.0
1/24/2025 18:45	2.3	84.0	0.0	6.8	12.1	0.0	1/24/2025 18:45	2.6	5.1	0.0	6.9	13.7	0.0	8.0
1/24/2025 19:00	2.3	83.9	0.0	6.9	12.1	0.0	1/24/2025 19:00	2.3	5.3	0.0	7.1	13.8	0.0	8.0
1/24/2025 19:15	2.2	84.0	0.0	6.9	12.2	0.0	1/24/2025 19:15	2.2	5.3	0.0	7.1	13.9	0.0	8.0
1/24/2025 19:30	2.2	84.0	0.0	6.8	12.1	0.0	1/24/2025 19:30	2.0	5.3	0.0	7.1	13.9	0.0	8.0
1/24/2025 19:45	2.2	84.2	0.0	6.9	12.2	0.0	1/24/2025 19:45	1.9	5.3	0.0	7.6	14.0	0.0	8.0
1/24/2025 20:00	2.2	84.3	0.0	6.9	12.1	0.0	1/24/2025 20:00	1.8	5.4	0.0	7.3	14.0	0.0	8.0
1/24/2025 20:15	2.2	84.3	0.0	6.9	12.2	0.0	1/24/2025 20:15	1.6	5.5	0.0	7.2	14.1	0.0	8.0
1/24/2025 20:30	2.1	84.4	0.0	6.9	12.2	0.0	1/24/2025 20:30	1.3	5.4	0.0	7.2	14.2	0.0	8.0
1/24/2025 20:45	2.1	84.5	0.0	6.9	12.2	0.0	1/24/2025 20:45	1.2	5.5	0.0	7.1	14.2	0.0	8.0
1/24/2025 21:00	2.1	84.6	0.0	6.9	12.2	0.0	1/24/2025 21:00	1.0	5.5	0.0	7.2	14.3	0.0	8.0
1/24/2025 21:15	2.1	84.7	0.0	6.9	12.2	0.0	1/24/2025 21:15	0.9	5.5	0.0	7.1	14.3	0.0	8.0
1/24/2025 21:30	2.1	84.8	0.0	6.9	12.1	0.0	1/24/2025 21:30	0.8	5.5	0.0	7.1	14.4	0.0	8.0
1/24/2025 21:45	2.1	84.8	0.0	6.9	12.1	0.0	1/24/2025 21:45	0.7	5.5	0.0	7.1	14.5	0.0	8.0
1/24/2025 22:00	2.1	84.8	0.0	6.9	12.2	0.0	1/24/2025 22:00	0.6	5.6	0.0	7.3	14.5	0.0	8.0
1/24/2025 22:15	2.1	84.7	0.0	6.9	12.1	0.0	1/24/2025 22:15	0.5	5.6	0.0	7.3	14.5	0.0	8.0
1/24/2025 22:30	2.0	84.8	0.0	6.9	12.2	0.0	1/24/2025 22:30	0.4	5.6	0.0	7.2	14.6	0.0	8.0
1/24/2025 22:45	2.0	84.9	0.0	6.9	12.2	0.0	1/24/2025 22:45	0.3	5.5	0.0	7.1	14.6	0.0	8.0
1/24/2025 23:00	2.0	84.9	0.0	6.9	12.2	0.0	1/24/2025 23:00	0.2	5.6	0.0	7.2	14.6	0.0	8.0
1/24/2025 23:15	2.0	84.9	0.0	6.9	12.2	0.0	1/24/2025 23:15	0.2	5.5	0.0	7.1	14.7	0.0	8.0
1/24/2025 23:30	2.0	85.0	0.0	6.9	12.2	0.0	1/24/2025 23:30	0.1	5.4	0.0	7.1	14.7	0.0	8.0
1/24/2025 23:45	2.0	85.1	0.0	6.9	12.2	0.0	1/24/2025 23:45	0.1	5.5	0.0	7.1	14.7	0.0	8.0
1/25/2025 0:00	2.0	85.3	0.0	6.9	12.2	0.0	1/25/2025 0:00	1.0	12.5	0.0	7.0	14.4	0.0	8.0
1/25/2025 0:15	1.9	85.3	0.0	6.9	12.1	0.0	1/25/2025 0:15	1.0	11.7	0.0	6.9	14.4	0.0	8.0
1/25/2025 0:30	1.9	85.3	0.0	6.9	12.2	0.0	1/25/2025 0:30	0.9	14.3	0.0	6.7	14.4	0.0	8.0
1/25/2025 0:45	1.9	85.3	0.0	6.9	12.1	0.0	1/25/2025 0:45	0.7	17.8	0.0	6.8	14.4	0.0	8.0
1/25/2025 1:00	1.9	85.3	0.0	6.9	12.1	0.0	1/25/2025 1:00	0.6	0.0	0.0	6.7	14.5	0.0	8.0
1/25/2025 1:15	1.9	85.2	0.0	6.9	12.1	0.0	1/25/2025 1:15	0.5	0.0	0.0	6.5	14.6	0.0	8.0
1/25/2025 1:30	1.9	84.9	0.0	6.9	12.2	0.0	1/25/2025 1:30	0.4	0.0	0.0	5.8	14.6	0.0	8.0
1/25/2025 1:45	1.9	85.0	0.0	6.9	12.2	0.0	1/25/2025 1:45	0.3	0.0	0.0	5.9	14.6	0.0	8.0
1/25/2025 2:00	1.9	84.9	0.0	6.9	12.2	0.0	1/25/2025 2:00	0.1	0.0	0.0	6.2	14.7	0.0	8.0
1/25/2025 2:15	1.9	84.8	0.0	6.9	12.3	0.0	1/25/2025 2:15	0.0	0.0	0.0	5.9	14.7	0.0	8.0
1/25/2025 2:30	1.8	84.6	0.0	6.9	12.3	0.0	1/25/2025 2:30	0.0	0.0	0.0	5.9	14.8	0.0	8.0
1/25/2025 2:45	1.8	84.5	0.0	6.9	12.3	0.0	1/25/2025 2:45	-0.1	0.0	0.0	5.8	14.8	0.0	8.0
1/25/2025 3:00	1.7	84.0	0.0	6.9	12.3	0.0	1/25/2025 3:00	-0.2	0.0	0.0	5.8	14.8	0.0	8.0
1/25/2025 3:15	1.7	83.7	0.0	7.0	12.3	0.0	1/25/2025 3:15	1.1	93.5	0.0		13.7	0.0	8.0
1/25/2025 3:30	1.6	83.1	0.0	7.0	12.3	0.0	1/25/2025 3:30	2.3	92.9	0.0	7.1	13.0	0.0	8.0
1/25/2025 3:45	1.6	82.8	0.0	7.0	12.4	0.0	1/25/2025 3:45	2.4	92.0	0.0	7.3	13.0	0.0	8.0
1/25/2025 4:00	1.6	82.3	0.0	7.0	12.4	0.0	1/25/2025 4:00	2.4	91.6	0.0	7.2	13.0	0.0	8.0
1/25/2025 4:15	1.6	82.1	0.0	7.0	12.4	0.0	1/25/2025 4:15	2.4	90.9	0.0	7.1	13.0	0.0	8.0
1/25/2025 4:30	1.5	81.6	0.0	7.0	12.4	0.0	1/25/2025 4:30	2.5	90.3	0.0	7.1	12.9	0.0	8.0
1/25/2025 4:45	1.5	81.4	0.0	7.0	12.4	0.0	1/25/2025 4:45	2.5	90.0	0.0	7.1	13.0	0.0	8.0
1/25/2025 5:00	1.5	81.2	0.0	7.0	12.4	0.0	1/25/2025 5:00	2.5	89.6	0.0	7.0	12.9	0.0	8.0
1/25/2025 5:15	1.5	80.8	0.0	7.0	12.4	0.0	1/25/2025 5:15	2.5	90.8	0.0	7.0	12.9	0.0	8.0
1/25/2025 5:30	1.5	81.1	0.0	7.0	12.4	0.0	1/25/2025 5:30	2.5	91.8	0.0	7.0	12.9	0.0	8.0
1/25/2025 5:45	1.5	81.6	0.0	7.0	12.4	0.0	1/25/2025 5:45	2.5	91.9	0.0	7.0	12.9	0.0	8.0
1/25/2025 6:00	1.5	81.7	0.0	7.0	12.4	0.0	1/25/2025 6:00	2.5	91.6	0.0	7.0	12.9	0.0	8.0
1/25/2025 6:15	1.5	81.8	0.0	7.0	12.4	0.0	1/25/2025 6:15	2.5	91.3	0.0	7.0	12.9	0.0	8.0
1/25/2025 6:30	1.5	81.7	0.0	7.0	12.4	0.0	1/25/2025 6:30	2.5	92.7	0.0	7.0	12.9	0.0	8.0
1/25/2025 6:45	1.5	81.8	0.0	7.0	12.4	0.0	1/25/2025 6:45	2.5	93.5	0.0	7.0	12.8	0.0	8.0
1/25/2025 7:00	1.5	82.8	0.0	7.0	12.4	0.0	1/25/2025 7:00	2.5	92.1	0.0	7.0	12.9	0.0	8.0
1/25/2025 7:15	1.5	82.5	0.0	7.0	12.4	0.0	1/25/2025 7:15	2.5	91.5	0.0	7.0	12.9	0.0	8.0
1/25/2025 7:30	1.5	82.1	0.0	7.0	12.4	0.0	1/25/2025 7:30	2.5	92.4	0.0	7.0	12.9	0.0	8.0
1/25/2025 7:45	1.5	82.0	0.0	7.0	12.4	0.0	1/25/2025 7:45	2.5	95.8	0.0	7.0	12.8	0.0	8.0
1/25/2025 8:00	1.5	84.4	0.0	7.0	12.4	0.0	1/25/2025 8:00	2.5	95.3	0.0	7.0	12.8	0.0	8.0
1/25/2025 8:15	1.5	84.0	0.0	6.9	12.3	0.0	1/25/2025 8:15	2.5	94.6	0.0	7.0	12.8	0.0	8.0
1/25/2025 8:30	1.5	84.1	0.0	7.0	12.4	0.0	1/25/2025 8:30	2.5	96.0	0.0	7.0	12.8	0.0	8.0
1/25/2025 8:45	1.5	84.7	0.0	7.0	12.3	0.0	1/25/2025 8:45	2.6	103.7	0.0	6.9	12.7	0.0	8.0
1/25/2025 9:00	1.5	86.1	0.0	7.0	12.3	0.0	1/25/2025 9:00	2.6	103.5	0.0	6.9	12.6	0.0	8.0
1/25/2025 9:15	1.5	88.4	0.0	6.9	12.2	0.0	1/25/2025 9:15	2.5	97.4	0.0	6.9	12.7	0.0	8.0
1/25/2025 9:30	1.5	87.5	0.0	7.0	12.2	0.0	1/25/2025 9:30	2.5	94.6	0.0	6.9	12.8	0.0	8.0
1/25/2025 9:45	1.4	85.3	0.0	7.0	12.3	0.0	1/25/2025 9:45	2.4	94.4	0.0	6.9	12.8	0.0	8.0
1/25/2025 10:00	1.4	84.4	0.0	7.0	12.4	0.0	1/25/2025 10:00	2.5	98.5	0.0	6.9	12.8	0.0	8.0
1/25/2025 10:15	1.4	84.8	0.0	7.0	12.3	0.0	1/25/2025 10:15	2.5	98.6	0.0	6.9	12.7	0.0	8.0
1/25/2025 10:30	1.5	85.6	0.0	7.0	12.3	0.0	1/25/2025 10:30	2.5	95.4	0.0	6.9	12.8	0.0	8.0
1/25/2025 10:45	1.4	85.3	0.0	7.0	12.4	0.0	1/25/2025 10:45	2.4	93.1	0.0	6.9	12.9	0.0	8.0
1/25/2025 11:00	1.4	84.0	0.0	7.0	12.4	0.0	1/25/2025 11:00	2.4	91.9	0.0	6.9	13.0	0.0	8.0
1/25/2025 11:15	1.4	83.1	0.0	7.0	12.4	0.0	1/25/2025 11:15	2.5	92.9	0.0	6.9	13.0	0.0	8.0
1/25/2025 11:30	1.4	82.8	0.0	7.0	12.5	0.0	1/25/2025 11:30	2.5	93.3	0.0	6.9	13.0	0.0	8.0
1/25/2025 11:45	1.5	82.8	0.0	7.0	12.5	0.0	1/25/2025 11:45	2.5	93.2	0.0	6.9	13.0	0.0	8.0
1/25/2025 12:00	1.5	83.1	0.0	7.0	12.5	0.0	1/25/2025 12:00	2.6	92.7	0.0	6.9	13.0	0.0	8.0
1/25/2025 12:15	1.6	82.7	0.0	7.0	12.5	0.0	1/25/2025 12:15	2.6	91.0	0.0	6.9	13.1	0.0	8.0
1/25/2025 12:30	1.6	81.9	0.0	7.0	12.6	0.0	1/25/2025 12:30	2.7	92.2	0.0	6.9	13.1	0.0	8.0
1/25/2025 12:45	1.6	82.1	0.0	7.0	12.6	0.0	1/25/2025 12:45	2.7	93.0	0.0	6.9	13.1	0.0	8.0
1/25/2025 13:00	1.7	82.7	0.0	7.0	12.5	0.0	1/25/2025 13:00	2.8	91.7	0.0	6.9	13.1	0.0	8.0
1/25/2025 13:15	1.8	82.4	0.0	7.0	12.6	0.0	1/25/2025 13:15	2.9	91.0	0.0	7.0	13.1	0.0	8.0
1/25/2025 13:30	1.8	82.1	0.0	7.0	12.6	0.0	1/25/2025 13:30	2.9	91.9	0.0	6.9	13.1	0.0	8.0
1/25/2025 13:45	1.9	82.7	0.0	7.0	12.6	0.0	1/25/2025 13:45	3.0	93.0	0.0	6.9	13.1	0.0	8.0
1/25/2025 14:00		82.8	0.0	7.0	12.6	0.0	1/25/2025 14:00	3.1	93.0	0.0	6.9	13.1	0.0	8.0
1/25/2025 14:15	2.0	83.0	0.0	7.0	12.6	0.0	1/25/2025 14:15	3.1	92.1	0.0	6.9	13.1	0.0	8.0
1/25/2025 14:30	2.1	82.7	0.0	7.0	12.6	0.0	1/25/2025 14:30	3.2	92.1	0.0	6.9	13.1	0.0	8.0
1/25/2025 14:45	2.1	82.6	0.0	7.0	12.6	0.0	1/25/2025 14:45	3.3	94.1	0.0	6.9	13.1	0.0	8.0

1/25/2025 15:00	2.2	83.5	0.0	7.0	12.5	0.0	1/25/2025 15:00	3.5	98.1	0.0	6.9	12.9	0.0	8.0
1/25/2025 15:15	2.4	87.5	0.0	7.0	12.5	0.0	1/25/2025 15:15	3.6	100.8	0.0	6.9	12.8	0.0	8.0
1/25/2025 15:30	2.5	89.2	0.0	7.0	12.4	0.0	1/25/2025 15:30	3.7	109.2	0.0	6.8	12.7	0.0	8.0
1/25/2025 15:45	2.6	91.8	0.0	7.0	12.4	0.0	1/25/2025 15:45	3.7	5.6	0.0	6.9	13.3	0.0	8.0
1/25/2025 16:00	2.6	93.1	0.0	6.9	12.3	0.0	1/25/2025 16:00	3.4	5.7	0.0	7.1	13.4	0.0	8.0
1/25/2025 16:15	2.7	96.3	0.1	6.9	12.2	0.0	1/25/2025 16:15	3.5	5.8	0.0	7.1	13.4	0.0	8.0
1/25/2025 16:30	2.6	95.3	0.1	6.9	12.2	0.0	1/25/2025 16:30	3.9	5.7	0.0	7.1	13.2	0.0	8.0
1/25/2025 16:45	2.6	92.6	0.0	6.8	12.2	0.0	1/25/2025 16:45	3.6	5.8	0.0	7.1	13.3	0.0	8.0
1/25/2025 17:00	2.6	91.4	0.0	6.8	12.0	0.0	1/25/2025 17:00	3.1	5.9	0.0	7.0	13.5	0.0	8.0
1/25/2025 17:15	2.6	89.9	0.0	6.8	12.1	0.0	1/25/2025 17:15	2.7	6.0	0.0	7.0	13.6	0.0	8.0
1/25/2025 17:30	2.5	88.6	0.0	6.7	11.9	0.0	1/25/2025 17:30	2.5	6.0	0.0	7.0	13.7	0.0	8.0
1/25/2025 17:45	2.5	88.0	0.0	6.6	11.6	0.0	1/25/2025 17:45	2.2	6.1	0.0	7.0	13.8	0.0	8.0
1/25/2025 18:00	2.4	87.5	0.0	6.7	11.7	0.0	1/25/2025 18:00	2.0	6.1	0.0	7.1	13.9	0.0	8.0
1/25/2025 18:15	2.3	87.0	0.0	6.6	12.1	0.0	1/25/2025 18:15	1.8	6.1	0.0	7.1	14.0	0.0	8.0
1/25/2025 18:30	2.3	86.8	0.0	6.6	11.8	0.0	1/25/2025 18:30	1.7	6.2	0.0	7.1	14.0	0.0	8.0
1/25/2025 18:45	2.3	86.6	0.0	6.7	12.1	0.0	1/25/2025 18:45	1.4	6.3	0.0	7.0	14.1	0.0	8.0
1/25/2025 19:00	2.2	86.6	0.0	6.7	12.2	0.0	1/25/2025 19:00	1.2	6.1	0.0	7.1	14.2	0.0	8.0
1/25/2025 19:15	2.2	86.6	0.0	6.8	12.2	0.0	1/25/2025 19:15	1.1	6.1	0.0	7.1	14.3	0.0	8.0
1/25/2025 19:30	2.2	86.6	0.0	6.8	12.2	0.0	1/25/2025 19:30	0.9	6.1	0.0	7.0	14.3	0.0	8.0
1/25/2025 19:45	2.1	86.6	0.0	6.8	12.2	0.0	1/25/2025 19:45	0.8	6.1	0.0	7.0	14.4	0.0	8.0
1/25/2025 20:00	2.1	86.6	0.0	6.8	12.3	0.0	1/25/2025 20:00	0.7	6.2	0.0	7.2	14.4	0.0	8.0
1/25/2025 20:15	2.1	86.6	0.0	6.8	12.2	0.0	1/25/2025 20:15	0.5	6.2	0.0	7.1	14.5	0.0	8.0
1/25/2025 20:30	2.0	86.6	0.0	6.8	12.3	0.0	1/25/2025 20:30	0.4	6.2	0.0	7.1	14.6	0.0	8.0
1/25/2025 20:45	2.0	86.8	0.0	6.9	12.3	0.0	1/25/2025 20:45	0.3	6.2	0.0	7.1	14.6	0.0	8.0
1/25/2025 21:00	2.1	86.8	0.0	6.8	12.2	0.0	1/25/2025 21:00	0.4	6.2	0.0	7.1	14.6	0.0	8.0
1/25/2025 21:15	2.0	86.8	0.0	6.7	12.1	0.0	1/25/2025 21:15	0.4	6.1	0.0	7.0	14.6	0.0	8.0
1/25/2025 21:30	2.0	86.8	0.0	6.8	12.2	0.0	1/25/2025 21:30	0.4	6.2	0.0	7.0	14.5	0.0	8.0
1/25/2025 21:45	2.0	86.9	0.0	6.9	12.1	0.0	1/25/2025 21:45	0.5	6.1	0.0	7.0	14.5	0.0	8.0
1/25/2025 22:00	2.0	86.9	0.0	6.9	12.2	0.0	1/25/2025 22:00	0.5	6.1	0.0	7.3	14.5	0.0	8.0
1/25/2025 22:15	2.0	87.0	0.0	6.8	12.2	0.0	1/25/2025 22:15	0.6	6.1	0.0	7.2	14.5	0.0	8.0
1/25/2025 22:30	2.0	87.1	0.0	6.8	12.2	0.0	1/25/2025 22:30	0.6	6.2	0.0	7.2	14.5	0.0	8.0
1/25/2025 22:45	2.0	87.2	0.0	6.9	12.2	0.0	1/25/2025 22:45	0.5	6.1	0.0	7.2	14.5	0.0	8.0
1/25/2025 23:00	2.0	87.2	0.0	6.9	12.2	0.0	1/25/2025 23:00	0.5	6.1	0.0	7.1	14.5	0.0	8.0
1/25/2025 23:15	2.0	87.1	0.0	6.8	12.2	0.0	1/25/2025 23:15	0.3	6.1	0.0	7.1	14.6	0.0	8.0
1/25/2025 23:30	2.0	87.1	0.0	6.9	12.2	0.0	1/25/2025 23:30	0.2	6.1	0.0	7.0	14.6	0.0	8.0
1/25/2025 23:45	2.0	87.1	0.0	6.9	12.2	0.0	1/25/2025 23:45	0.1	6.1	0.0	7.0	14.7	0.0	8.0
1/26/2025 0:00	2.0	87.2	0.0	6.9	12.2	0.0	1/26/2025 0:00	0.0	6.2	0.0	7.1	14.7	0.0	8.0
1/26/2025 0:15	2.0	87.3	0.0	6.9	12.2	0.0	1/26/2025 0:15	-0.1	6.2	0.0	7.1	14.8	0.0	8.0
1/26/2025 0:30	2.0	87.3	0.0	6.9	12.2	0.0	1/26/2025 0:30	-0.2	6.2	0.0	7.1	14.8	0.0	8.0
1/26/2025 0:45	2.0	87.4	0.0	6.9	12.2	0.0	1/26/2025 0:45	-0.3	6.2	0.0	7.1	14.8	0.0	8.0
1/26/2025 1:00	1.9	87.4	0.0	6.9	12.2	0.0	1/26/2025 1:00	1.0	10.1	0.0	6.9	14.4	0.0	8.0
1/26/2025 1:15	1.9	87.5	0.0	6.9	12.2	0.0	1/26/2025 1:15	0.8	10.8	0.0	6.9	14.6	0.0	8.0
1/26/2025 1:30	1.9	87.4	0.0	6.8	12.2	0.0	1/26/2025 1:30	0.7	0.0	0.0	7.0	14.8	0.0	8.0
1/26/2025 1:45	1.9	87.3	0.0	6.9	12.2	0.0	1/26/2025 1:45	0.5	0.0	0.0	6.6	14.7	0.0	8.0
1/26/2025 2:00	1.9	87.2	0.0	6.9	12.2	0.0	1/26/2025 2:00	0.4	0.0	0.0	6.5	14.8	0.0	8.0
1/26/2025 2:15	1.8	87.2	0.0	6.8	12.2	0.0	1/26/2025 2:15	0.3	0.0	0.0	4.7	14.8	0.0	8.0
1/26/2025 2:30	1.8	87.0	0.0	6.9	12.2	0.0	1/26/2025 2:30	0.2	0.0	0.0	5.7	14.8	0.0	8.0
1/26/2025 2:45	1.8	86.9	0.0	6.9	12.2	0.0	1/26/2025 2:45	0.1	0.0	0.0	6.0	14.8	0.0	8.0
1/26/2025 3:00	1.8	86.8	0.0	6.9	12.3	0.0	1/26/2025 3:00	-0.1	0.0	0.0	5.8	14.8	0.0	8.0
1/26/2025 3:15	1.7	86.5	0.0	6.9	12.3	0.0	1/26/2025 3:15	-0.2	0.0	0.0	5.7	14.8	0.0	8.0
1/26/2025 3:30	1.7	86.4	0.0	7.0	12.3	0.0	1/26/2025 3:30	-0.3	0.0	0.0	5.5	14.9	0.0	8.0
1/26/2025 3:45	1.6	85.9	0.0	6.9	12.3	0.0	1/26/2025 3:45	2.1	96.5	0.0	6.3	13.1	0.0	8.0
1/26/2025 4:00	1.6	85.6	0.0	7.0	12.3	0.0	1/26/2025 4:00	2.2	94.7	0.0	7.2	13.0	0.0	8.0
1/26/2025 4:15	1.6	85.0	0.0	7.0	12.4	0.0	1/26/2025 4:15	2.3	94.1	0.0	7.3	12.9	0.0	8.0
1/26/2025 4:30	1.5	84.6	0.0	7.0	12.4	0.0	1/26/2025 4:30	2.4	93.5	0.0	7.3	12.9	0.0	8.0
1/26/2025 4:45	1.5	84.3	0.0	7.0	12.4	0.0	1/26/2025 4:45	2.4	92.8	0.0	7.2	12.9	0.0	8.0
1/26/2025 5:00	1.5	83.9	0.0	7.0	12.4	0.0	1/26/2025 5:00	2.4	92.4	0.0	7.1	12.9	0.0	8.0
1/26/2025 5:15	1.5	83.6	0.0	7.0	12.4	0.0	1/26/2025 5:15	2.4	92.0	0.0	7.1	12.9	0.0	8.0
1/26/2025 5:30	1.5	83.2	0.0	7.0	12.4	0.0	1/26/2025 5:30	2.4	91.9	0.0	7.0	12.9	0.0	8.0
1/26/2025 5:45	1.5	83.2	0.0	7.0	12.4	0.0	1/26/2025 5:45	2.5	96.4	0.0	7.0	12.8	0.0	8.0
1/26/2025 6:00	1.5	83.3	0.0	7.0	12.4	0.0	1/26/2025 6:00	2.5	97.1	0.0	7.0	12.8	0.0	8.0
1/26/2025 6:15	1.5	85.1	0.0	7.0	12.4	0.0	1/26/2025 6:15	2.5	95.9	0.0	7.0	12.8	0.0	8.0
1/26/2025 6:30	1.5	85.3	0.0	7.0	12.3	0.0	1/26/2025 6:30	2.6	96.8	0.0	7.0	12.8	0.0	8.0
1/26/2025 6:45	1.5	85.4	0.0	7.0	12.3	0.0	1/26/2025 6:45	2.6	96.2	0.0	7.0	12.8	0.0	8.0
1/26/2025 7:00	1.5	85.3	0.0	7.0	12.3	0.0	1/26/2025 7:00	2.6	95.8	0.0	7.0	12.8	0.0	8.0
1/26/2025 7:15	1.5	85.3	0.0	7.0	12.4	0.0	1/26/2025 7:15	2.5	94.9	0.0	7.0	12.8	0.0	8.0
1/26/2025 7:30	1.5	84.7	0.0	7.0	12.4	0.0	1/26/2025 7:30	2.5	94.1	0.0	7.0	12.9	0.0	8.0
1/26/2025 7:45	1.5	84.3	0.0	7.0	12.4	0.0	1/26/2025 7:45	2.5	94.3	0.0	7.0	12.9	0.0	8.0
1/26/2025 8:00	1.5	84.2	0.0	7.0	12.4	0.0	1/26/2025 8:00	2.5	94.3	0.0	7.0	12.9	0.0	8.0
1/26/2025 8:15	1.5	84.0	0.0	7.0	12.4	0.0	1/26/2025 8:15	2.5	94.7	0.0	7.0	12.8	0.0	8.0
1/26/2025 8:30	1.5	84.3	0.0	7.0	12.4	0.0	1/26/2025 8:30	2.5	94.7	0.0	7.0	12.8	0.0	8.0
1/26/2025 8:45	1.5	84.4	0.0	7.0	12.4	0.0	1/26/2025 8:45	2.5	96.1	0.0	6.9	12.8	0.0	8.0
1/26/2025 9:00	1.5	84.9	0.0	7.0	12.4	0.0	1/26/2025 9:00	2.5	97.0	0.0	6.9	12.8	0.0	8.0
1/26/2025 9:15	1.5	85.9	0.0	7.0	12.3	0.0	1/26/2025 9:15	2.5	97.4	0.0	6.9	12.8	0.0	8.0
1/26/2025 9:30	1.5	86.8	0.0	7.0	12.3	0.0	1/26/2025 9:30	2.5	100.0	0.0	6.9	12.7	0.0	8.0
1/26/2025 9:45	1.5	88.4	0.0	7.0	12.3	0.0	1/26/2025 9:45	2.6	100.9	0.0	6.9	12.7	0.0	8.0
1/26/2025 10:00	1.5	88.7	0.0	7.0	12.3	0.0	1/26/2025 10:00	2.5	98.0	0.0	6.9	12.8	0.0	8.0
1/26/2025 10:15	1.5	87.3	0.0	7.0	12.3	0.0	1/26/2025 10:15	2.5	100.5	0.0	6.9	12.7	0.0	8.0
1/26/2025 10:30	1.5	87.9	0.0	7.0	12.3	0.0	1/26/2025 10:30	2.6	100.0	0.0	6.9	12.8	0.0	8.0
1/26/2025 10:45	1.5	88.2	0.0	7.0	12.3	0.0	1/26/2025 10:45	2.6	100.9	0.0	6.9	12.7	0.0	8.0
1/26/2025 11:00	1.5	88.5	0.0	7.0	12.3	0.0	1/26/2025 11:00	2.5	97.0	0.0	6.9	12.8	0.0	8.0
1/26/2025 11:15	1.5	88.0	0.0	7.0	12.3	0.0	1/26/2025 11:15	2.5	95.8	0.0	6.9	12.9	0.0	8.0
1/26/2025 11:30	1.5	86.3	0.0	7.0	12.4	0.0	1/26/2025 11:30	2.6	96.2	0.0	6.9	12.9	0.0	8.0
1/26/2025 11:45	1.5	86.1	0.0	7.0	12.4	0.0	1/26/2025 11:45	2.6	96.4	0.0	6.9	12.9	0.0	8.0
1/26/2025 12:00	1.6	86.0	0.0	7.0	12.4	0.0	1/26/2025 12:00	2.7	95.9	0.0	6.9	12.9	0.0	8.0
1/26/2025 12:15	1.6	86.1	0.0	7.0	12.5	0.0	1/26/2025 12:15	2.7	93.8	0.0	6.9	13.0	0.0	8.0
1/26/2025 12:30	1.6	84.8	0.0	7.0	12.5	0.0	1/26/2025 12:30	2.7	93.1	0.0	6.9	13.0	0.0	8.0
1/26/2025 12:45	1.7	84.8	0.0	7.0	12.5	0.0	1/26/2025 12:45	2.8	92.4	0.0	6.9	13.1	0.0	8.0
1/26/2025 13:00	1.7	84.2	0.0	7.0	12.5	0.0	1/26/2025 13:00	2.8	92.1	0.0	6.9	13.1	0.0	8.0
1/26/2025 13:15	1.8	83.4	0.0	7.0	12.6	0.0	1/26/2025 13:15	2.8	91.7	0.0	6.9	13.1	0.0	8.0
1/26/2025 13:30	1.8	83.0	0.0	7.0	12.6	0.0	1/26/2025 13:30	2.9	91.0	0.0	6.9	13.1	0.0	8.0
1/26/2025 13:45	1.9	82.6	0.0	7.0	12.6	0.0	1/26/2025 13:45	3.0	90.6	0.0	6.9	13.2	0.0	8.0
1/26/2025 14:00	1.9	82.6	0.0	7.0	12.6	0.0	1/26/2025 14:00	3.1	90.7	0.0	6.9	13.2	0.0	8.0
1/26/2025 14:15	2.0	82.4	0.0	7.0	12.6	0.0	1/26/2025 14:15	3.1	90.8	0.0	7.0	13.2	0.0	8.0
1/26/2025 14:30	2.1	82.4	0.0	7.1	12.6	0.0	1/26/2025 14:30	3.2	91.5	0.0	6.9	13.1	0.0	8.0
1/26/2025 14:45	2.1	82.7	0.0	7.1	12.6	0.0	1/26/2025 14:45	3.3	91.9	0.0	6.9	13.1	0.0	8.0
1/26/2025 15:00	2.2	83.2	0.0	7.1	12.6	0.0	1/26/2025 15:00	3.3	91.8	0.0	6.9	13.1	0.0	8.0
1/26/2025 15:15	2.3	82.9	0.0	7.0	12.6	0.0	1/26/2025 15:15	3.4	92.4	0.0	6.9	13.1	0.0	8.0
1/26/2025 15:30	2.3	83.3	0.0	7.0	12.6	0.0	1/26/2025 15:30	3.5	94.0	0.0	6.9	13.1	0.0	8.0
1/26/2025 15:45	2.4	83.7	0.0	7.0	12.6	0.0	1/26/2025 15:45	3.6	96.3	0.0	6.9	13.0	0.0	8.0
1/26/2025 16:00	2.5	86.5	0.0	7.0	12.5	0.0	1/26/2025 16:00	3.7	101.0	0.0	6.9	12.9	0.0	8.0
1/26/2025 16:15	2.6	90.2	0.0	7.0	12.4	0.0	1/26/2025 16:15	3.8	107.3	0.0	6.8	12.8	0.0	8.0
1/26/2025 16:30	2.6	92.5	0.0	7.0	12.4	0.0	1/26/2025 16:30	3.9	110.8	0.1	6.8	12.6	0.0	8.0
1/26/2025 16:45	2.7	94.2	0.0	7.0	12.3	0.0	1/26/2025 16:45	3.7	5.3	0.0	6.9	13.3	0.0	8.0
1/26/2025 17:00	2.7	95.5	0.1	6.9	12.3	0.0	1/26/2025 17:00	3.2	5.6	0.0	7.0	13.5	0.0	8.0
1/26/2025 17:15	2.6	96.0	0.1	6.9	12.2	0.0	1/26/2025 17:15	2.8	5.8	0.0	7.0	13.6	0.0	8.0
1/26/2025 17:30	2.6	95.4	0.1	6.9	12.2	0.0	1/26/2025 17:30	2.5	5.8	0.0	7.0	13.7	0.0	8.0
1/26/2025 17:45	2.5	93.7	0.0	6.8	12.1	0.0	1/26/2025 17:45	2.2	5.8	0.0	7.0	13.8	0.0	8.0
1/26/2025 18:00	2.5	92.0	0.0	6.8	11.9	0.0	1/26/2025 18:00	2.0	5.8	0.0	7.1	13.9	0.0	8.0
1/26/2025 18:15	2.4	90.5	0.0	6.6	11.7	0.0	1/26/2025 18:15	1.8	6.0	0.0	7.1	14.0	0.0	8.0
1/26/2025 18:30	2.4	89.2	0.0	6.6	11.8	0.0	1/26/2025 18:30	1.4	6.0	0.0	7.1	14.1	0.0	8.0
1/26/2025 18:45	2.3	88.0	0.0	6.8	12.1	0.0	1/26/2025 18:45	1.2	6.0	0.0	7.1	14.2	0.0	8.0
1/26/2025 19:00	2.2	87.7	0.0	6.7	12.0	0.0	1/26/2025 19:00	1.0	6.1	0.0	7.1	14.3	0.0	8.0
1/26/2025 19:15	2.2	87.6	0.0	6.6	12.1	0.0	1/26/2025 19:15	0.8	6.1	0.0	7.0	14.4	0.0	8.0
1/26/2025 19:30	2.2	87.5	0.0	6.7	12.0	0.0	1/26/2025 19:30	0.9	6.1	0.0	7.0	14.3	0.0	8.0
1/26/2025 19:45	2.1	87.2	0.0	6.8	12.1	0.0	1/26/2025 19:45	1.0	6.0	0.0	7.0	14.3	0.0	8.0
1/26/2025 20:00	2.1	87.2	0.0	6.7	12.1	0.0	1/26/2025 20:00	1.0	5.8	0.0	7.2	14.3	2.8	10.8
1/26/2025 20:15	2.1	87.3	0.0	6.8	12.2	0.0	1/26/2025 20:15	1.0	7.1	0.0	7.1	14.4	0.0	8.0
1/26/2025 20:30	2.1	87.3	0.0	6.8	12.2	0.0	1/26/2025 20:30	1.0	12.2	0.0	7.0	14.9	0.0	8.0
1/26/2025 20:45	2.0	87.3	0.0	6.9	12.2	0.0	1/26/2025 20:45	0.8	18.3	0.0	6.9	14.9	0.0	8.0
1/26/2025 21:00	2.0	87.3	0.0	6.9	12.2	0.0	1/26/2025 21:00	0.8	17.3	0.0	6.9	15.0	0.0	8.0
1/26/2025 21:15	2.0	87.5	0.0	6.9	12.2	0.0	1/26/2025 21:15	0.8	17.4	0.0	6.8	15.0	0.0	8.0
1/26/2025 21:30	2.0	87.7	0.0	6.9	12.2	0.0	1/26/2025 21:30	0.7	0.0	0.0	6.7	14.9	0.0	8.0
1/26/2025 21:45	2.0	87.6	0.0	6.9	12.2	0.0	1/26/2025 21:45	0.7	0.0	0.0	6.8	14.8	0.0	8.0
1/26/2025 22:00	1.9	87.6	0.0	6.9	12.2	0.0	1/26/2025 22:00	0.7	0.0	0.0	6.8	14.8	0.0	8.0
1/26/2025 22:15	1.9	87.6	0.0	6.9	12.2	0.0	1/26/2025 22:15	0.6	0.0	0.0	6.4	14.8	0.0	8.0
1/26/2025 22:30	1.9	87.7	0.0	6.9	12.2	0.0	1/26/2025 22:30	0.5	0.0	0.0	6.2	14.8	0.0	8.0
1/26/2025 22:45	1.9	87.8	0.0	6.9	12.2	0.0	1/26/2025 22:45	0.4	0.0	0.0	6.1	14.8	0.0	8.0
1/26/2025 23:00	1.9	87.7	0.0	6.9	12.2	0	1/26/2025 23:00	0.3	0.0	0.0	6.3	14.8	0.0	8.0
1/26/2025 23:15	1.9	87.7	0.0	6.9	12.2	0	1/26/2025 23:15	0.3	0.0	0.0	6.2	14.8	0.0	8.0
1/26/2025 23:30	1.9	87.8	0.0	6.9	12.2	0	1/26/2025 23:30	0.2	0.0	0.0	6.1	14.8	0.0	8.0
1/26/2025 23:45	1.9	87.8	0.0	6.9	12.2	0	1/26/2025 23:45	0.2	0.0	0.0	6.1	14.8	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: Farshad Shafiei Ph.D., R.P.Bio.		WLNG EOP	Sample or value notes	BCWQ FAL - Short Term	BCWQ MAL - Short Term
	LAB ID			VA25A1496-001			
	Date Sampled			21-Jan-2025			
	Time Sampled			12:30			
Analyte	Units	FAL-ST [1,2]	MAL-ST [1]	Water			
				N/A		Guideline notes	
In Situ Parameters							
pH (field)	pH units	6.5-9.0	7.0-8.7	8.90	The in-situ pH was outside the range of the short-term BCWQG for MAL. However, this was likely due to inaccuracy of the device. pH measured with another device was 7.28. The WTP PLC displayed pH of 7.1.	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 = 15°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	8.9		Guideline is species-dependent. Short-term daily temperature is 15°C for streams with Bull Trout &/or Dolly Varden, Max +/- 1°C from the optimum range as shown in Table 43B of the BCWG for aquatic life for each life history phase of the most sensitive salmoind species present, Mean Weekly Max Temperature guideline is 18°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	-	-	139			
Turbidity (field)	NTU	Varies with background, see note Guideline = 14.2	Varies with background, see note Guideline = 14.2	6.20		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
Dissolved Oxygen (field)	mg/L	Varies with life stage, see note	Varies with life stage, see note	-		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 9 mg/L, all other life stages 5 mg/L. Refer to BC Water Quality Guidelines for more information.
General Parameters							
Hardness (as $CaCO_3$) (total)	mg/L	-	-	56.6			
Total Dissolved Solids	mg/L	-	-	82			
Total Suspended Solids	mg/L	Varies with background, see note Guideline = 28	Varies with background, see note Guideline = 28	< 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
Dissolved Organic Carbon (DOC)	mg/L	-	-	< 0.50			
Total Phenols	mg/L	0.05	-	< 0.0010		Interim guideline	Interim guideline
Total Alkalinity ($CaCO_3$)	mg/L	-	-	56.9			
Total Sulfide (as S)	mg/L	-	-	< 0.0015			
Total Sulfide (un-ionized 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 = 0.831	Varies with pH and temperature. See note. Guideline = 2.3	0.0169		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	4.45			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 = 1.105	1.5	0.198		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	-	0.0172			
Nitrite (as N)	mg/L	Varies with chloride. Table 27B, see note. Guideline = 0.06	-	< 0.0010		Varies with chloride. Refer to Table 27B in BC WQG for guideline values.	
Total Nitrogen	mg/L	-	-	0.17			
Total Phosphorous	mg/L	-	-	0.0214			
Sulfate (as SO_4)	mg/L	-	-	5.52			
Total Metals							
Aluminum (Al)-Total	mg/L	-	-	0.0592			
Antimony (Sb)-Total	mg/L	0.25	-	0.0003			
Arsenic (As)-Total	mg/L	-	-	0.00105			
Barium (Ba)-Total	mg/L	-	-	0.00433			
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	-	-	< 0.0000200			
Calcium (Ca)-Total	mg/L	-	-	21			
Cesium (Cs)-Total	mg/L	-	-	0.000018			
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	0.001			
Iron (Fe)-Total	mg/L	1	-	< 0.010			
Lead (Pb)-Total	mg/L		0.14	0.000307			
Lithium (Li)-Total	mg/L	-	-	0.0043			
Magnesium (Mg)-Total	mg/L	-	-	1.02			
Manganese (Mn)-Total	mg/L	Varies with hardness Guideline = 1.164	-	0.0106		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.	
Mercury (Hg)-Total	mg/L	-	-	< 0.0000050			
Molybdenum (Mo)-Total	mg/L	46	-	0.0196			
Nickel (Ni)-Total	mg/L	-	-	<0.00050			
Phosphorus (P)-Total	mg/L	-	-	< 0.050			
Potassium (K)-Total	mg/L	-	-	2.11			
Rubidium (Rb)-Total	mg/L	-	-	0.00355			
Selenium (Se)-Total	mg/L	-	-	0.000065			
Silicon (Si)-Total	mg/L	-	-	5.61			
Silver (Ag)-Total	mg/L	Varies with hardness, see note Guideline = 0.0001	0.003	< 0.000010		Varies with hardness Guideline ranges: Hardness ≤ 100: 0.0001 Hardness > 100: 0.003	
Sodium (Na)-Total	mg/L	-	-	4.17			
Strontium (Sr)-Total	mg/L	-	-	0.0429			
Sulfur (S)-Total	mg/L	-	-	2.04			
Tellurium (Te)-Total	mg/L	-	-	< 0.00020			
Thallium (Tl)-Total	mg/L	-	-	< 0.00010			
Thorium (Th)-Total	mg/L	-	-	< 0.00010			
Tin (Sn)-Total	mg/L	-	-	< 0.00010			
Titanium (Ti)-Total	mg/L	-	-	0.00034			
Tungsten (W)-Total	mg/L	-	-	0.00037			
Uranium (U)-Total	mg/L	0.0165	-	0.00384			
Vanadium (V)-Total	mg/L	-	-	< 0.00050			
Zinc (Zn)-Total	mg/L	-	0.055	0.0064			
Zirconium (Zr)-Total	mg/L	-	-	< 0.00020			
Dissolved Metals							
Aluminum (Al)-Dissolved	mg/L	-	-	0.0424			
Antimony (Sb)-Dissolved	mg/L	-	-	0.00025			
Arsenic (As)-Dissolved	mg/L	-	-	0.00088			
Barium (Ba)-Dissolved	mg/L	-	-	0.00406			
Beryllium (Be)-Dissolved	mg/L	-	-	< 0.000100			
Bismuth (Bi)-Dissolved	mg/L	-	-	< 0.000050			
Boron (B)-Dissolved	mg/L	-	-	0.015			
Cadmium (Cd)-Dissolved	mg/L	Varies with hardness, see note Guideline = 0.000327	-	0.0000138		Guideline is hardness dependent. Guideline is applicable to water hardness between 7.0 and 455 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.	
Calcium (Ca)-Dissolved	mg/L	-	-	20.5			
Cesium (Cs)-Dissolved	mg/L	-	-	0.000016			
Chromium (Cr)-Dissolved	mg/L	-	-	< 0.00050			
Chromium (Cr(III))-Dissolved	mg/L	-	-	< 0.00050			
Chromium (Cr(VI))-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 = 0.0019	-	0.0007		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	-	< 0.010			
Lead (Pb)-Dissolved	mg/L	-	-	0.000183			
Lithium (Li)-Dissolved	mg/L	-	-	0.0041			
Magnesium (Mg)-Dissolved	mg/L	-	-	0.933			
Manganese (Mn)-Dissolved	mg/L	-	-	0.0102			
Mercury (Hg)-Dissolved	mg/L	-	-	< 0.000005			
Molybdenum (Mo)-Dissolved	mg/L	-	-	0.0189			
Nickel (Ni)-Dissolved	mg/L	Guideline varies with pH, temperature, DOC, and hardness Guideline: 0.027	-	< 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	-	-	< 0.050			
Potassium (K)-Dissolved	mg/L	-	-	2.08			
Rubidium (Rb)-Dissolved	mg/L	-	-	0.00335			
Selenium (Se)-Dissolved	mg/L	-	-	0.000079			
Silicon (Si)-Dissolved	mg/L	-	-	5.36			
Silver (Ag)-Dissolved	mg/L	-	-	< 0.000010			
Sodium (Na)-Dissolved	mg/L	-	-	4.41			
Strontium (Sr)-Dissolved	mg/L	-	-	0.0436			
Sulfur (S)-Dissolved	mg/L	-	-	1.55			
Tellurium (Te)-Dissolved	mg/L	-	-	< 0.00020			
Thallium (Tl)-Dissolved	mg/L	-	-	0.000011			
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	-	-	0.00032			
Uranium (U)-Dissolved	mg/L	-	-	0.00344			
Vanadium (V)-Dissolved	mg/L	-	-	< 0.00050			
Zinc (Zn)-Dissolved	mg/L	Varies with DOC and hardness Guideline = 0.018	-	0.006		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)/2/1000) 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			
Volatile Organic Compounds							
Chlorobenzene	µg/L	-	-	< 0.50			
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	-	-	< 0.20			
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	-	-	< 0.50			
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			
VHw (C6-C10)	µg/L	-	-	< 100			
VPHw	µg/L	-	-	< 100			
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	µg/L	-	-	< 0.010			
Acenaphthylene	µg/L	-	-	< 0.010			
Acridine	µg/L	-	-	< 0.010			
Anthracene	µg/L	0.1	-	< 0.010			
Benz(a)anthracene	µg/L	0.1	-	< 0.010			
Benzo(a)pyrene	µg/L	-	-	< 0.0050			
Benzo(b+j)fluoranthene	µg/L	-	-	< 0.010			
Benzo(b+j+k)fluoranthene	µg/L	-	-	< 0.015			
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	-	-	0.026			
Methylnaphthalene, 2-	µg/L	-	-	0.022			
Naphthalene	µg/L	-	-	< 0.050			
Phenanthrene	µg/L	-	-	< 0.020			
Pyrene	µg/L	0.02	-	< 0.010			
Quinoline	µg/L	-	-	< 0.050		Working guideline status	
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 2023) for Freshwater Aquatic Life (FAL) & Marine Aquatic Life (MAL) Short-Term (ST) & Long-Term (LT)**					

[1]BC MOECCS. 2023. BC Water Qualtiy Guidelines for the Protection of Aquatic Life, Wildlife & Agriculture. Accessed from: wqg_summary_aquaticlife_wildlife_agri.pdf (gov.bc.ca)
[2]BC MOECCS. 2021. BC Working Water Qualtiy Guidelines for the Protection of Aquatic Life, Widlife & Agriculture. Accessed from: bc_env_working_water_quality_guidelines.pdf (gov.bc.ca)
[3]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**).
[4]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 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	8.9	8.9
Temperature (field)	°C	Field temperature taken using handheld meters during sampling used in calculations	8.9	8.9
Turbidity (field)	NTU	Field turbidity taken using handheld meters during sampling used in calculations	6.20	6.20
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	56.6	56.6
Dissolved Organic Carbon (DOC)	mg/L	Laboratory tested dissolved organic carbon tested at the lab used in guideline calculations	0.5	0.5
Total Alkalinity ($CaCO_3$)	mg/L	Laboratory tested total alkalinity used in calculations	56.9	56.9
Chloride	mg/L	Laboratory tested chloride taken at each respective sample site on the day of sampling used in guideline calculations	4.45	4.45
Total Suspended Solids	mg/L	Laboratory tested total suspended solids tested at the lab used in guideline calculations	< 3.0	< 3.0

Woodfibre Site Sample Lab Documentation

CERTIFICATE OF ANALYSIS

Work Order	: **VA25A1496**		
Client	: **Triton Environmental Consultants Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact		Account Manager	
Address		Address	
Telephone		Telephone	
Project	: 11964	Date Samples Received	: 21-Jan-2025 18:45
PO	: 11964-Task 40-Phase 3C-4C	Date Analysis Commenced	: 22-Jan-2025
C-O-C number	: 23-1142879	Issue Date	: 29-Jan-2025 15:13
Sampler	: ----		
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
- 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*
	Supervisor - Organics Instrumentation	Organics, Burnaby, British Columbia
	Supervisor - Metals ICP Instrumentation	Metals, Burnaby, British Columbia
	Supervisor - Metals ICP Instrumentation	Inorganics, Burnaby, British Columbia
	Department Manager - Inorganics	Inorganics, Burnaby, British Columbia
	Account Manager Assistant	Administration, Burnaby, British Columbia
	Team Leader - Inorganics	Inorganics, Edmonton, Alberta

General Comments

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

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

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

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

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

Unit	*Description*
-	no units
°C	degrees celsius
mg/L	milligrams per litre
NTU	nephelometric turbidity units
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).

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	WLNG EOP	Trip Blank	----	----	----
					Client sampling date / time	21-Jan-2025 12:30	21-Jan-2025 12:30	----	----	----
						VA25A1496-001	VA25A1496-002	----	----	----
						Result	Result	----	----	----
Field Tests										
Conductivity, field	----	EF001/VA	0.10	µS/cm		139.00	----	----	----	----
pH, field	----	EF001/VA	0.10	pH units		8.90	----	----	----	----
Temperature, field	----	EF001/VA	0.10	°C		8.90	----	----	----	----
Turbidity, field	----	EF001/VA	0.01	NTU		6.2	----	----	----	----
Physical Tests										
Hardness (as CaCO3), dissolved	----	EC100/VA	0.60	mg/L		55.0	----	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/VA	0.60	mg/L		56.6	<0.60	----	----	----
Solids, total dissolved [TDS]	----	E162/VA	10	mg/L		82	<10	----	----	----
Solids, total suspended [TSS]	----	E160/VA	3.0	mg/L		<3.0	<3.0	----	----	----
Alkalinity, total (as CaCO3)	----	E290/VA	2.0	mg/L		56.9	<2.0	----	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L		0.0169	<0.0050	----	----	----
Bromide	24959-67-9	E235.Br-L/VA	0.050	mg/L		<0.050	<0.050	----	----	----
Chloride	16887-00-6	E235.Cl/VA	0.50	mg/L		4.45	<0.50	----	----	----
Fluoride	16984-48-8	E235.F/VA	0.020	mg/L		0.198	<0.020	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/VA	0.0050	mg/L		0.0172	<0.0050	----	----	----
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		0.170	<0.030	----	----	----
Phosphorus, total	7723-14-0	E372-U/VA	0.0020	mg/L		0.0214	<0.0020	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/VA	0.30	mg/L		5.52	<0.30	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	WLNG EOP	Trip Blank	----	----	----
					Client sampling date / time	21-Jan-2025 12:30	21-Jan-2025 12:30	----	----	----
						VA25A1496-001	VA25A1496-002	----	----	----
						Result	Result	----	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/VA	0.50	mg/L		<0.50	----	----	----	----
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	----	----	----	----
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		0.0592	<0.0030	----	----	----
Antimony, total	7440-36-0	E420/VA	0.00010	mg/L		0.00030	<0.00010	----	----	----
Arsenic, total	7440-38-2	E420/VA	0.00010	mg/L		0.00105	<0.00010	----	----	----
Barium, total	7440-39-3	E420/VA	0.00010	mg/L		0.00433	<0.00010	----	----	----
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		0.016	<0.010	----	----	----
Cadmium, total	7440-43-9	E420/VA	0.0000050	mg/L		<0.0000200 DLM	<0.0000050	----	----	----
Calcium, total	7440-70-2	E420/VA	0.050	mg/L		21.0	<0.050	----	----	----
Cesium, total	7440-46-2	E420/VA	0.000010	mg/L		0.000018	<0.000010	----	----	----
Chromium, total	7440-47-3	E420/VA	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Cobalt, total	7440-48-4	E420/VA	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Copper, total	7440-50-8	E420/VA	0.00050	mg/L		0.00100	<0.00050	----	----	----
Iron, total	7439-89-6	E420/VA	0.010	mg/L		<0.010	<0.010	----	----	----
Lead, total	7439-92-1	E420/VA	0.000050	mg/L		0.000307	<0.000050	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	WLNG EOP	Trip Blank	----	----	----
					Client sampling date / time	21-Jan-2025 12:30	21-Jan-2025 12:30	----	----	----
						VA25A1496-001	VA25A1496-002	----	----	----
						Result	Result	----	----	----
Total Metals										
Lithium, total	7439-93-2	E420/VA	0.0010	mg/L		0.0043	<0.0010	----	----	----
Magnesium, total	7439-95-4	E420/VA	0.0050	mg/L		1.02	<0.0050	----	----	----
Manganese, total	7439-96-5	E420/VA	0.00010	mg/L		0.0106	<0.00010	----	----	----
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		0.0196	<0.000050	----	----	----
Nickel, total	7440-02-0	E420/VA	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Phosphorus, total	7723-14-0	E420/VA	0.050	mg/L		<0.050	<0.050	----	----	----
Potassium, total	7440-09-7	E420/VA	0.050	mg/L		2.11	<0.050	----	----	----
Rubidium, total	7440-17-7	E420/VA	0.00020	mg/L		0.00355	<0.00020	----	----	----
Selenium, total	7782-49-2	E420/VA	0.000050	mg/L		0.000065	<0.000050	----	----	----
Silicon, total	7440-21-3	E420/VA	0.10	mg/L		5.61	<0.10	----	----	----
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		4.17	<0.050	----	----	----
Strontium, total	7440-24-6	E420/VA	0.00020	mg/L		0.0429	<0.00020	----	----	----
Sulfur, total	7704-34-9	E420/VA	0.50	mg/L		2.04	<0.50	----	----	----
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		0.00034	<0.00030	----	----	----
Tungsten, total	7440-33-7	E420/VA	0.00010	mg/L		0.00037	<0.00010	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: WLNG EOP	Trip Blank	----	----	----
					Client sampling date / time: 21-Jan-2025 12:30	21-Jan-2025 12:30	----	----	----
					VA25A1496-001	VA25A1496-002	----	----	----
					Result	Result	----	----	----
Total Metals									
Uranium, total	7440-61-1	E420/VA	0.000010	mg/L	0.00384	<0.000010	----	----	----
Vanadium, total	7440-62-2	E420/VA	0.00050	mg/L	<0.00050	<0.00050	----	----	----
Zinc, total	7440-66-6	E420/VA	0.0030	mg/L	0.0064	<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	0.0424	----	----	----	----
Antimony, dissolved	7440-36-0	E421/VA	0.00010	mg/L	0.00025	----	----	----	----
Arsenic, dissolved	7440-38-2	E421/VA	0.00010	mg/L	0.00088	----	----	----	----
Barium, dissolved	7440-39-3	E421/VA	0.00010	mg/L	0.00406	----	----	----	----
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	0.015	----	----	----	----
Cadmium, dissolved	7440-43-9	E421/VA	0.0000050	mg/L	0.0000138	----	----	----	----
Calcium, dissolved	7440-70-2	E421/VA	0.050	mg/L	20.5	----	----	----	----
Cesium, dissolved	7440-46-2	E421/VA	0.000010	mg/L	0.000016	----	----	----	----
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	0.00070	----	----	----	----
Iron, dissolved	7439-89-6	E421/VA	0.010	mg/L	<0.010	----	----	----	----
Lead, dissolved	7439-92-1	E421/VA	0.000050	mg/L	0.000183	----	----	----	----
Lithium, dissolved	7439-93-2	E421/VA	0.0010	mg/L	0.0041	----	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	WLNG EOP	Trip Blank	----	----	----
					Client sampling date / time	21-Jan-2025 12:30	21-Jan-2025 12:30	----	----	----
						VA25A1496-001	VA25A1496-002	----	----	----
						Result	Result	----	----	----
Dissolved Metals										
Magnesium, dissolved	7439-95-4	E421/VA	0.0050	mg/L		0.933	----	----	----	----
Manganese, dissolved	7439-96-5	E421/VA	0.00010	mg/L		0.0102	----	----	----	----
Mercury, dissolved	7439-97-6	E509/VA	0.0000050	mg/L		<0.0000050	----	----	----	----
Molybdenum, dissolved	7439-98-7	E421/VA	0.000050	mg/L		0.0189	----	----	----	----
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		2.08	----	----	----	----
Rubidium, dissolved	7440-17-7	E421/VA	0.00020	mg/L		0.00335	----	----	----	----
Selenium, dissolved	7782-49-2	E421/VA	0.000050	mg/L		0.000079	----	----	----	----
Silicon, dissolved	7440-21-3	E421/VA	0.050	mg/L		5.36	----	----	----	----
Silver, dissolved	7440-22-4	E421/VA	0.000010	mg/L		<0.000010	----	----	----	----
Sodium, dissolved	7440-23-5	E421/VA	0.050	mg/L		4.41	----	----	----	----
Strontium, dissolved	7440-24-6	E421/VA	0.00020	mg/L		0.0436	----	----	----	----
Sulfur, dissolved	7704-34-9	E421/VA	0.50	mg/L		1.55	----	----	----	----
Tellurium, dissolved	13494-80-9	E421/VA	0.00020	mg/L		<0.00020	----	----	----	----
Thallium, dissolved	7440-28-0	E421/VA	0.000010	mg/L		0.000011	----	----	----	----
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		0.00032	----	----	----	----
Uranium, dissolved	7440-61-1	E421/VA	0.000010	mg/L		0.00344	----	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	WLNG EOP	Trip Blank	----	----	----
					Client sampling date / time	21-Jan-2025 12:30	21-Jan-2025 12:30	----	----	----
						VA25A1496-001	VA25A1496-002	----	----	----
						Result	Result	----	----	----
Dissolved Metals										
Vanadium, dissolved	7440-62-2	E421/VA	0.00050	mg/L		<0.00050	----	----	----	----
Zinc, dissolved	7440-66-6	E421/VA	0.0010	mg/L		0.0060	----	----	----	----
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	<0.00050	----	----	----
Chromium, trivalent [Cr III], total	16065-83-1	EC535/VA	0.00050	mg/L		<0.00050	<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	<0.50	----	----	----
Chloromethane	74-87-3	E611C/VA	5.0	µg/L		<5.0	<5.0	----	----	----
Dichlorobenzene, 1,2-	95-50-1	E611C/VA	0.50	µg/L		<0.50	<0.50	----	----	----
Dichlorobenzene, 1,3-	541-73-1	E611C/VA	0.50	µg/L		<0.50	<0.50	----	----	----
Dichlorobenzene, 1,4-	106-46-7	E611C/VA	0.50	µg/L		<0.50	<0.50	----	----	----
Dichloropropane, 1,2-	78-87-5	E611C/VA	0.50	µg/L		<0.50	<0.50	----	----	----
Dichloropropylene, cis-1,3-	10061-01-5	E611C/VA	0.50	µg/L		<0.50	<0.50	----	----	----
Dichloropropylene, cis+trans-1,3-	542-75-6	E611C/VA	0.75	µg/L		<0.75	<0.75	----	----	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611C/VA	0.50	µg/L		<0.50	<0.50	----	----	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611C/VA	0.20	µg/L		<0.20	<0.20	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: WLNG EOP	Trip Blank	----	----	----
					Client sampling date / time: 21-Jan-2025 12:30	21-Jan-2025 12:30	----	----	----
					VA25A1496-001	VA25A1496-002	----	----	----
					Result	Result	----	----	----
Volatile Organic Compounds									
Trichloroethane, 1,1,2-	79-00-5	E611C/VA	0.50	µg/L	<0.50	<0.50	----	----	----
Trichlorofluoromethane	75-69-4	E611C/VA	0.50	µg/L	<0.50	<0.50	----	----	----
Volatile Organic Compounds [Drycleaning]									
Carbon tetrachloride	56-23-5	E611C/VA	0.50	µg/L	<0.50	<0.50	----	----	----
Chloroethane	75-00-3	E611C/VA	0.50	µg/L	<0.50	<0.50	----	----	----
Dichloroethane, 1,1-	75-34-3	E611C/VA	0.50	µg/L	<0.50	<0.50	----	----	----
Dichloroethane, 1,2-	107-06-2	E611C/VA	0.50	µg/L	<0.50	<0.50	----	----	----
Dichloroethylene, 1,1-	75-35-4	E611C/VA	0.50	µg/L	<0.50	<0.50	----	----	----
Dichloroethylene, cis-1,2-	156-59-2	E611C/VA	0.50	µg/L	<0.50	<0.50	----	----	----
Dichloroethylene, trans-1,2-	156-60-5	E611C/VA	0.50	µg/L	<0.50	<0.50	----	----	----
Dichloromethane	75-09-2	E611C/VA	1.0	µg/L	<1.0	<1.0	----	----	----
Dichloropropylene, trans-1,3-	10061-02-6	E611C/VA	0.50	µg/L	<0.50	<0.50	----	----	----
Tetrachloroethylene	127-18-4	E611C/VA	0.50	µg/L	<0.50	<0.50	----	----	----
Trichloroethane, 1,1,1-	71-55-6	E611C/VA	0.50	µg/L	<0.50	<0.50	----	----	----
Trichloroethylene	79-01-6	E611C/VA	0.50	µg/L	<0.50	<0.50	----	----	----
Vinyl chloride	75-01-4	E611C/VA	0.40	µg/L	<0.40	<0.40	----	----	----
Volatile Organic Compounds [Fuels]									
Benzene	71-43-2	E611C/VA	0.50	µg/L	<0.50	<0.50	----	----	----
Ethylbenzene	100-41-4	E611C/VA	0.50	µg/L	<0.50	<0.50	----	----	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611C/VA	0.50	µg/L	<0.50	<0.50	----	----	----
Styrene	100-42-5	E611C/VA	0.50	µg/L	<0.50	<0.50	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	WLNG EOP	Trip Blank	----	----	----
					Client sampling date / time	21-Jan-2025 12:30	21-Jan-2025 12:30	----	----	----
						VA25A1496-001	VA25A1496-002	----	----	----
						Result	Result	----	----	----
Volatile Organic Compounds [Fuels]										
Toluene	108-88-3	E611C/VA	0.40	µg/L		<0.40	<0.40	----	----	----
Xylene, m+p-	179601-23-1	E611C/VA	0.40	µg/L		<0.40	<0.40	----	----	----
Xylene, o-	95-47-6	E611C/VA	0.30	µg/L		<0.30	<0.30	----	----	----
Xylenes, total	1330-20-7	E611C/VA	0.50	µg/L		<0.50	<0.50	----	----	----
Volatile Organic Compounds [THMs]										
Bromodichloromethane	75-27-4	E611C/VA	0.50	µg/L		<0.50	<0.50	----	----	----
Bromoform	75-25-2	E611C/VA	0.50	µg/L		<0.50	<0.50	----	----	----
Chloroform	67-66-3	E611C/VA	0.50	µg/L		<0.50	<0.50	----	----	----
Dibromochloromethane	124-48-1	E611C/VA	0.50	µg/L		<0.50	<0.50	----	----	----
Hydrocarbons										
EPH (C10-C19)	----	E601A/VA	250	µg/L		<250	<250	----	----	----
EPH (C19-C32)	----	E601A/VA	250	µg/L		<250	<250	----	----	----
VHw (C6-C10)	----	E581.VH+F1/VA	100	µg/L		<100	<100	----	----	----
HEPHw	----	EC600A/VA	250	µg/L		<250	<250	----	----	----
LEPHw	----	EC600A/VA	250	µg/L		<250	<250	----	----	----
VPHw	----	EC580A/VA	100	µg/L		<100	<100	----	----	----
Hydrocarbons Surrogates										
Bromobenzotrifluoride, 2- (EPH surrogate)	392-83-6	E601A/VA	1.0	%		93.4	92.9	----	----	----
Dichlorotoluene, 3,4-	95-75-0	E581.VH+F1/VA	1.0	%		93.0	107	----	----	----
Volatile Organic Compounds Surrogates										
Bromofluorobenzene, 4-	460-00-4	E611C/VA	1.0	%		98.5	98.8	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	WLNG EOP	Trip Blank	----	----	----
					Client sampling date / time	21-Jan-2025 12:30	21-Jan-2025 12:30	----	----	----
						VA25A1496-001	VA25A1496-002	----	----	----
						Result	Result	----	----	----
Volatile Organic Compounds Surrogates										
Difluorobenzene, 1,4-	540-36-3	E611C/VA	1.0	%		99.3	98.9	----	----	----
Polycyclic Aromatic Hydrocarbons										
Acenaphthene	83-32-9	E641A/VA	0.010	µg/L		<0.010	<0.010	----	----	----
Acenaphthylene	208-96-8	E641A/VA	0.010	µg/L		<0.010	<0.010	----	----	----
Acridine	260-94-6	E641A/VA	0.010	µg/L		<0.010	<0.010	----	----	----
Anthracene	120-12-7	E641A/VA	0.010	µg/L		<0.010	<0.010	----	----	----
Benz(a)anthracene	56-55-3	E641A/VA	0.010	µg/L		<0.010	<0.010	----	----	----
Benzo(a)pyrene	50-32-8	E641A/VA	0.0050	µg/L		<0.0050	<0.0050	----	----	----
Benzo(b+j)fluoranthene	n/a	E641A/VA	0.010	µg/L		<0.010	<0.010	----	----	----
Benzo(b+j+k)fluoranthene	n/a	E641A/VA	0.015	µg/L		<0.015	<0.015	----	----	----
Benzo(g,h,i)perylene	191-24-2	E641A/VA	0.010	µg/L		<0.010	<0.010	----	----	----
Benzo(k)fluoranthene	207-08-9	E641A/VA	0.010	µg/L		<0.010	<0.010	----	----	----
Chrysene	218-01-9	E641A/VA	0.010	µg/L		<0.010	<0.010	----	----	----
Dibenz(a,h)anthracene	53-70-3	E641A/VA	0.0050	µg/L		<0.0050	<0.0050	----	----	----
Fluoranthene	206-44-0	E641A/VA	0.010	µg/L		<0.010	<0.010	----	----	----
Fluorene	86-73-7	E641A/VA	0.010	µg/L		<0.010	<0.010	----	----	----
Indeno(1,2,3-c,d)pyrene	193-39-5	E641A/VA	0.010	µg/L		<0.010	<0.010	----	----	----
Methylnaphthalene, 1-	90-12-0	E641A/VA	0.010	µg/L		0.026	<0.010	----	----	----
Methylnaphthalene, 2-	91-57-6	E641A/VA	0.010	µg/L		0.022	<0.010	----	----	----
Naphthalene	91-20-3	E641A/VA	0.050	µg/L		<0.050	<0.050	----	----	----
Phenanthrene	85-01-8	E641A/VA	0.020	µg/L		<0.020	<0.020	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	WLNG EOP	Trip Blank	----	----	----
					Client sampling date / time	21-Jan-2025 12:30	21-Jan-2025 12:30	----	----	----
						VA25A1496-001	VA25A1496-002	----	----	----
						Result	Result	----	----	----
Polycyclic Aromatic Hydrocarbons										
Pyrene	129-00-0	E641A/VA	0.010	µg/L		<0.010	<0.010	----	----	----
Quinoline	91-22-5	E641A/VA	0.050	µg/L		<0.050	<0.050	----	----	----
Polycyclic Aromatic Hydrocarbons Surrogates										
Chrysene-d12	1719-03-5	E641A/VA	0.1	%		82.9	79.7	----	----	----
Naphthalene-d8	1146-65-2	E641A/VA	0.1	%		94.5	94.9	----	----	----
Phenanthrene-d10	1517-22-2	E641A/VA	0.1	%		84.7	84.9	----	----	----
Glycols										
Diethylene glycol	111-46-6	E680E/VA	5.0	mg/L		<5.0	<5.0	----	----	----
Ethylene glycol	107-21-1	E680E/VA	5.0	mg/L		<5.0	<5.0	----	----	----
Propylene glycol, 1,2-	57-55-6	E680E/VA	5.0	mg/L		<5.0	<5.0	----	----	----
Triethylene glycol	112-27-6	E680E/VA	5.0	mg/L		<5.0	<5.0	----	----	----
Glycols, total (EG+DEG+PG)	----	E680E/VA	10	mg/L		<10	<10	----	----	----
Glycols Surrogates										
Propanediol, 1,3-	504-63-2	E680E/VA	1.0	%		101	103	----	----	----

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

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA25A1496**	Page	: 1 of 17
Client	: **Triton Environmental Consultants Ltd.**	Laboratory	
Contact		Account Manager	
Address		Address	
Telephone		Telephone	
Project	: 11964	Date Samples Received	: 21-Jan-2025 18:45
PO	: 11964-Task 40-Phase 3C-4C	Issue Date	: 29-Jan-2025 15:12
C-O-C number	: 23-1142879		
Sampler	: ----		
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 Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- Method Blank value outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Method Blank (MB) Values								
Total Metals	QC-1849991-001	----	Magnesium, total	7439-95-4	E420	0.0067 mg/L B	0.005 mg/L	Blank result exceeds permitted value
Total Metals	QC-1849991-001	----	Manganese, total	7439-96-5	E420	0.00024 mg/L B	0.0001 mg/L	Blank result exceeds permitted value

Result Qualifiers

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

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	21-Jan-2025	24-Jan-2025	28 days	3 days	✓	24-Jan-2025	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) WLNG EOP	E298	21-Jan-2025	23-Jan-2025	28 days	2 days	✓	23-Jan-2025	28 days	2 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (lab preserved) Trip Blank	E298	21-Jan-2025	23-Jan-2025	3 days	2 days	✓	23-Jan-2025	28 days	0 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE Trip Blank	E235.Br-L	21-Jan-2025	23-Jan-2025	28 days	2 days	✓	23-Jan-2025	28 days	2 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE WLNG EOP	E235.Br-L	21-Jan-2025	23-Jan-2025	28 days	2 days	✓	23-Jan-2025	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE Trip Blank	E235.Cl	21-Jan-2025	23-Jan-2025	28 days	2 days	✓	23-Jan-2025	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE WLNG EOP	E235.Cl	21-Jan-2025	23-Jan-2025	28 days	2 days	✓	23-Jan-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										
Trip Blank	E235.F	21-Jan-2025	23-Jan-2025	28 days	2 days	✓	23-Jan-2025	28 days	2 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE										
WLNG EOP	E235.F	21-Jan-2025	23-Jan-2025	28 days	2 days	✓	23-Jan-2025	28 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
Trip Blank	E235.NO3-L	21-Jan-2025	23-Jan-2025	3 days	2 days	✓	23-Jan-2025	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
WLNG EOP	E235.NO3-L	21-Jan-2025	23-Jan-2025	3 days	2 days	✓	23-Jan-2025	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
Trip Blank	E235.NO2-L	21-Jan-2025	23-Jan-2025	3 days	2 days	✓	23-Jan-2025	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
WLNG EOP	E235.NO2-L	21-Jan-2025	23-Jan-2025	3 days	2 days	✓	23-Jan-2025	3 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
Trip Blank	E235.SO4	21-Jan-2025	23-Jan-2025	28 days	2 days	✓	23-Jan-2025	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
WLNG EOP	E235.SO4	21-Jan-2025	23-Jan-2025	28 days	2 days	✓	23-Jan-2025	28 days	2 days	✓
Anions and Nutrients : Total Nitrogen by Colourimetry										
Amber glass total (sulfuric acid)										
WLNG EOP	E366	21-Jan-2025	23-Jan-2025	28 days	2 days	✓	24-Jan-2025	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Nitrogen by Colourimetry										
Amber glass total (lab preserved)										
Trip Blank	E366	21-Jan-2025	23-Jan-2025	3 days	2 days	✓	24-Jan-2025	28 days	1 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
WLNG EOP	E372-U	21-Jan-2025	23-Jan-2025	28 days	2 days	✓	25-Jan-2025	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (lab preserved)										
Trip Blank	E372-U	21-Jan-2025	23-Jan-2025	3 days	2 days	✓	25-Jan-2025	28 days	2 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
WLNG EOP	E509	21-Jan-2025	26-Jan-2025	28 days	5 days	✓	26-Jan-2025	28 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
WLNG EOP	E421	21-Jan-2025	23-Jan-2025	180 days	2 days	✓	24-Jan-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 dissolved (hydrochloric acid)										
WLNG EOP	EF001	21-Jan-2025	----	----	----		24-Jan-2025	----	3 days	
Glycols : Glycols (4 analytes) by GC-FID										
Glass vial										
Trip Blank	E680E	21-Jan-2025	27-Jan-2025	7 days	6 days	✓	28-Jan-2025	40 days	1 days	✓
Glycols : Glycols (4 analytes) by GC-FID										
Glass vial										
WLNG EOP	E680E	21-Jan-2025	27-Jan-2025	7 days	6 days	✓	28-Jan-2025	40 days	1 days	✓
Hydrocarbons : BC PHCs - EPH by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
Trip Blank	E601A	21-Jan-2025	28-Jan-2025	14 days	7 days	✓	28-Jan-2025	40 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Hydrocarbons : BC PHCs - EPH by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
WLNG EOP	E601A	21-Jan-2025	28-Jan-2025	14 days	7 days	✓	28-Jan-2025	40 days	0 days	✓
Hydrocarbons : VH and F1 by Headspace GC-FID										
Glass vial (sodium bisulfate)										
Trip Blank	E581.VH+F1	21-Jan-2025	28-Jan-2025	14 days	7 days	✓	29-Jan-2025	14 days	8 days	✓
Hydrocarbons : VH and F1 by Headspace GC-FID										
Glass vial (sodium bisulfate)										
WLNG EOP	E581.VH+F1	21-Jan-2025	28-Jan-2025	14 days	7 days	✓	29-Jan-2025	14 days	8 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
WLNG EOP	E358-L	21-Jan-2025	23-Jan-2025	28 days	2 days	✓	23-Jan-2025	28 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE										
Trip Blank	E290	21-Jan-2025	23-Jan-2025	14 days	2 days	✓	23-Jan-2025	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE										
WLNG EOP	E290	21-Jan-2025	23-Jan-2025	14 days	2 days	✓	23-Jan-2025	14 days	2 days	✓
Physical Tests : TDS by Gravimetry										
HDPE										
Trip Blank	E162	21-Jan-2025	----	----	----		27-Jan-2025	7 days	6 days	✓
Physical Tests : TDS by Gravimetry										
HDPE										
WLNG EOP	E162	21-Jan-2025	----	----	----		27-Jan-2025	7 days	6 days	✓
Physical Tests : TSS by Gravimetry										
HDPE										
Trip Blank	E160	21-Jan-2025	----	----	----		27-Jan-2025	7 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry										
HDPE										
WLNG EOP	E160	21-Jan-2025	----	----	----		27-Jan-2025	7 days	6 days	✓
Polycyclic Aromatic Hydrocarbons : PAHs in Water by Hexane LVI GC-MS										
Amber glass/Teflon lined cap (sodium bisulfate)										
Trip Blank	E641A	21-Jan-2025	28-Jan-2025	14 days	7 days	✓	28-Jan-2025	40 days	0 days	✓
Polycyclic Aromatic Hydrocarbons : PAHs in Water by Hexane LVI GC-MS										
Amber glass/Teflon lined cap (sodium bisulfate)										
WLNG EOP	E641A	21-Jan-2025	28-Jan-2025	14 days	7 days	✓	28-Jan-2025	40 days	0 days	✓
Speciated Metals : Total Hexavalent Chromium (Cr VI) by IC										
Opaque HDPE - total (sodium hydroxide)										
Trip Blank	E532	21-Jan-2025	----	----	----		22-Jan-2025	28 days	1 days	✓
Speciated Metals : Total Hexavalent Chromium (Cr VI) by IC										
Opaque HDPE - total (sodium hydroxide)										
WLNG EOP	E532	21-Jan-2025	----	----	----		22-Jan-2025	28 days	1 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial - total (lab preserved)										
Trip Blank	E508	21-Jan-2025	25-Jan-2025	28 days	4 days	✓	25-Jan-2025	28 days	4 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
WLNG EOP	E508	21-Jan-2025	25-Jan-2025	28 days	4 days	✓	25-Jan-2025	28 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE - total (lab preserved)										
Trip Blank	E420	21-Jan-2025	23-Jan-2025	180 days	2 days	✓	24-Jan-2025	180 days	3 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
WLNG EOP	E420	21-Jan-2025	23-Jan-2025	180 days	2 days	✓	24-Jan-2025	180 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Sulfides : Total Sulfide by Colourimetry (Automated Flow)										
HDPE total (zinc acetate+sodium hydroxide)										
Trip Blank	E395	21-Jan-2025	----	----	----		27-Jan-2025	7 days	6 days	✓
Total Sulfides : Total Sulfide by Colourimetry (Automated Flow)										
HDPE total (zinc acetate+sodium hydroxide)										
WLNG EOP	E395	21-Jan-2025	----	----	----		27-Jan-2025	7 days	6 days	✓
Volatile Organic Compounds : VOCs (BC List) by Headspace GC-MS										
Glass vial (sodium bisulfate)										
Trip Blank	E611C	21-Jan-2025	28-Jan-2025	14 days	7 days	✓	29-Jan-2025	14 days	8 days	✓
Volatile Organic Compounds : VOCs (BC List) by Headspace GC-MS										
Glass vial (sodium bisulfate)										
WLNG EOP	E611C	21-Jan-2025	28-Jan-2025	14 days	7 days	✓	29-Jan-2025	14 days	8 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)							
Alkalinity Species by Titration	E290	1848814	1	17	5.8	5.0	✓
Ammonia by Fluorescence	E298	1848777	1	16	6.2	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	1848811	1	11	9.0	5.0	✓
Chloride in Water by IC	E235.Cl	1848807	1	17	5.8	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1852523	1	14	7.1	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1849296	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1848779	1	2	50.0	5.0	✓
Fluoride in Water by IC	E235.F	1848810	1	17	5.8	5.0	✓
Glycols (4 analytes) by GC-FID	E680E	1853283	1	16	6.2	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1848808	1	20	5.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1848809	1	20	5.0	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	1850899	1	16	6.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1848806	1	17	5.8	5.0	✓
TDS by Gravimetry	E162	1853454	1	12	8.3	5.0	✓
Total Hexavalent Chromium (Cr VI) by IC	E532	1848694	1	11	9.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1852032	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1849991	1	20	5.0	5.0	✓
Total Nitrogen by Colourimetry	E366	1848778	1	5	20.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1848775	1	15	6.6	5.0	✓
Total Sulfide by Colourimetry (Automated Flow)	E395	1853386	1	8	12.5	5.0	✓
TSS by Gravimetry	E160	1853450	1	12	8.3	5.0	✓
VH and F1 by Headspace GC-FID	E581.VH+F1	1854662	1	13	7.6	5.0	✓
VOCs (BC List) by Headspace GC-MS	E611C	1854663	1	13	7.6	5.0	✓
Laboratory Control Samples (LCS)							
Alkalinity Species by Titration	E290	1848814	1	17	5.8	5.0	✓
Ammonia by Fluorescence	E298	1848777	1	16	6.2	5.0	✓
BC PHCs - EPH by GC-FID	E601A	1854323	1	7	14.2	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	1848811	1	11	9.0	5.0	✓
Chloride in Water by IC	E235.Cl	1848807	1	17	5.8	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1852523	1	14	7.1	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1849296	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1848779	1	2	50.0	5.0	✓
Fluoride in Water by IC	E235.F	1848810	1	17	5.8	5.0	✓
Glycols (4 analytes) by GC-FID	E680E	1853283	1	16	6.2	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1848808	1	20	5.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1848809	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							
PAHs in Water by Hexane LVI GC-MS	E641A	1854324	1	2	50.0	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	1850899	1	16	6.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1848806	1	17	5.8	5.0	✓
TDS by Gravimetry	E162	1853454	1	12	8.3	5.0	✓
Total Hexavalent Chromium (Cr VI) by IC	E532	1848694	1	11	9.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1852032	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1849991	1	20	5.0	5.0	✓
Total Nitrogen by Colourimetry	E366	1848778	1	5	20.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1848775	1	15	6.6	5.0	✓
Total Sulfide by Colourimetry (Automated Flow)	E395	1853386	1	8	12.5	5.0	✓
TSS by Gravimetry	E160	1853450	1	12	8.3	5.0	✓
VH and F1 by Headspace GC-FID	E581.VH+F1	1854662	1	13	7.6	5.0	✓
VOCs (BC List) by Headspace GC-MS	E611C	1854663	1	13	7.6	5.0	✓
Method Blanks (MB)							
Alkalinity Species by Titration	E290	1848814	1	17	5.8	5.0	✓
Ammonia by Fluorescence	E298	1848777	1	16	6.2	5.0	✓
BC PHCs - EPH by GC-FID	E601A	1854323	1	7	14.2	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	1848811	1	11	9.0	5.0	✓
Chloride in Water by IC	E235.Cl	1848807	1	17	5.8	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1852523	1	14	7.1	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1849296	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1848779	1	2	50.0	5.0	✓
Fluoride in Water by IC	E235.F	1848810	1	17	5.8	5.0	✓
Glycols (4 analytes) by GC-FID	E680E	1853283	1	16	6.2	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1848808	1	20	5.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1848809	1	20	5.0	5.0	✓
PAHs in Water by Hexane LVI GC-MS	E641A	1854324	1	2	50.0	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	1850899	1	16	6.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1848806	1	17	5.8	5.0	✓
TDS by Gravimetry	E162	1853454	1	12	8.3	5.0	✓
Total Hexavalent Chromium (Cr VI) by IC	E532	1848694	1	11	9.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1852032	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1849991	1	20	5.0	5.0	✓
Total Nitrogen by Colourimetry	E366	1848778	1	5	20.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1848775	1	15	6.6	5.0	✓
Total Sulfide by Colourimetry (Automated Flow)	E395	1853386	1	8	12.5	5.0	✓
TSS by Gravimetry	E160	1853450	1	12	8.3	5.0	✓
VH and F1 by Headspace GC-FID	E581.VH+F1	1854662	1	13	7.6	5.0	✓
VOCs (BC List) by Headspace GC-MS	E611C	1854663	1	13	7.6	5.0	✓

Matrix: **Water**

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

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1848777	1	16	6.2	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	1848811	1	11	9.0	5.0	✓
Chloride in Water by IC	E235.Cl	1848807	1	17	5.8	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1852523	1	14	7.1	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1849296	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1848779	1	2	50.0	5.0	✓
Fluoride in Water by IC	E235.F	1848810	1	17	5.8	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1848808	1	20	5.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1848809	1	20	5.0	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	1850899	1	16	6.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1848806	1	17	5.8	5.0	✓
Total Hexavalent Chromium (Cr VI) by IC	E532	1848694	1	11	9.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1852032	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1849991	1	20	5.0	5.0	✓
Total Nitrogen by Colourimetry	E366	1848778	1	5	20.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1848775	1	15	6.6	5.0	✓
Total Sulfide by Colourimetry (Automated Flow)	E395	1853386	1	8	12.5	5.0	✓
VH and F1 by Headspace GC-FID	E581.VH+F1	1854662	1	13	7.6	5.0	✓
VOCs (BC List) by Headspace GC-MS	E611C	1854663	1	13	7.6	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.

QUALITY CONTROL REPORT

Work Order	: **VA25A1496**	Page	: 1 of 23
Client	: Triton Environmental Consultants Ltd.	Laboratory	: ALS Environmental - Vancouver
Contact		Account Manager	
Address		Address	
Telephone		Telephone	
Project	: 11964	Date Samples Received	: 21-Jan-2025 18:45
PO	: 11964-Task 40-Phase 3C-4C	Date Analysis Commenced	: 22-Jan-2025
C-O-C number	: 23-1142879	Issue Date	: 29-Jan-2025 15:13
Sampler	: ----		
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*
	Supervisor - Organics Instrumentation	Vancouver Organics, Burnaby, British Columbia
	Supervisor - Metals ICP Instrumentation	Vancouver Inorganics, Burnaby, British Columbia
	Supervisor - Metals ICP Instrumentation	Vancouver Metals, Burnaby, British Columbia
	Department Manager - Inorganics	Vancouver Inorganics, Burnaby, British Columbia
	Account Manager Assistant	Vancouver Administration, Burnaby, British Columbia
	Team Leader - Inorganics	Edmonton Inorganics, Edmonton, Alberta

General Comments

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

Key :

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

Workorder Comments

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

Laboratory Duplicate (DUP) Report

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

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1848814)											
VA25A1387-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	215	214	0.280%	20%	----
Physical Tests (QC Lot: 1853450)											
VA25A1436-003	Anonymous	Solids, total suspended [TSS]	----	E160	7.5	mg/L	2330	2450	5.38%	20%	----
Physical Tests (QC Lot: 1853454)											
VA25A1436-003	Anonymous	Solids, total dissolved [TDS]	----	E162	20	mg/L	462	459	0.543%	20%	----
Anions and Nutrients (QC Lot: 1848775)											
VA25A1291-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0053	0.0047	0.0006	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1848777)											
KS2500213-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0163	0.0161	0.0002	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1848778)											
KS2500213-001	Anonymous	Nitrogen, total	7727-37-9	E366	1.50	mg/L	4.48	4.29	0.191	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1848806)											
VA25A1387-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	3.00	mg/L	243	241	0.908%	20%	----
Anions and Nutrients (QC Lot: 1848807)											
VA25A1387-001	Anonymous	Chloride	16887-00-6	E235.Cl	5.00	mg/L	237	234	1.59%	20%	----
Anions and Nutrients (QC Lot: 1848808)											
VA25A1387-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0500	mg/L	0.752	0.739	1.68%	20%	----
Anions and Nutrients (QC Lot: 1848809)											
VA25A1387-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0100	mg/L	<0.0100	<0.0100	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1848810)											
VA25A1387-001	Anonymous	Fluoride	16984-48-8	E235.F	0.200	mg/L	0.431	0.427	0.004	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1848811)											
VA25A1387-001	Anonymous	Bromide	24959-67-9	E235.Br-L	0.500	mg/L	0.599	0.592	0.007	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1848779)											
VA25A1457-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	1.56	1.43	0.14	Diff <2x LOR	----
Total Sulfides (QC Lot: 1853386)											
VA25A1393-001	Anonymous	Sulfide, total (as S)	18496-25-8	E395	0.0015	mg/L	0.0719	0.0681	5.42%	20%	----
Total Metals (QC Lot: 1849991)											
VA25A1462-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.280	0.306	8.54%	20%	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00013	0.00013	0.000002	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1849991) - continued											
VA25A1462-001	Anonymous	Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00031	0.00026	0.00005	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.00799	0.00808	1.22%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000181	0.0000159	0.0000022	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	15.5	15.8	1.46%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000015	0.000022	0.000007	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	0.00119	0.00131	0.00012	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00026	0.00027	0.000007	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00686	0.00709	3.27%	20%	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.333	0.366	9.54%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000080	0.000092	0.000012	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.100	mg/L	2.34	2.30	1.56%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0215	0.0229	6.57%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000160	0.000153	0.000006	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00076	0.00081	0.00005	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.100	mg/L	0.185	0.184	0.0003	Diff <2x LOR	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00034	0.00035	0.000008	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000124	0.000112	0.000012	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	5.24	5.36	2.29%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	0.000018	0.000016	0.000001	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	2.83	2.80	1.27%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0395	0.0395	0.0214%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	3.50	3.58	0.08	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	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	0.00660	0.00655	0.748%	20%	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000016	0.000015	0.0000002	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: 1849991) - continued											
VA25A1462-001	Anonymous	Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00121	0.00128	0.00006	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.0043	0.0048	0.0005	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00040	mg/L	<0.00040	<0.00040	0	Diff <2x LOR	----
Total Metals (QC Lot: 1852032)											
VA25A1485-004	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	0.0000057	0.0000053	0.0000005	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1849296)											
VA25A1380-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0521	0.0503	3.37%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.00437	0.00425	2.78%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000100	mg/L	<0.000100	<0.000100	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	0.0000066	0.0000016	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	1.93	1.87	3.06%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00055	0.00055	0.000004	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	0.194	0.189	2.65%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00042	0.00035	0.00007	Diff <2x LOR	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000241	0.000232	0.000009	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	0.102	0.100	0.002	Diff <2x LOR	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00023	<0.00020	0.00003	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	2.57	2.53	1.76%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	0.979	0.953	2.71%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.00831	0.00805	3.16%	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: 1849296) - continued											
VA25A1380-001	Anonymous	Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000131	0.000128	2.42%	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	0.0010	<0.0010	0.00001	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: 1852523)											
VA25A1464-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Speciated Metals (QC Lot: 1848694)											
VA24D4318-006	Anonymous	Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.00050	mg/L	0.00126	0.00125	0.000006	Diff <2x LOR	----
Aggregate Organics (QC Lot: 1850899)											
VA25A1420-001	Anonymous	Phenols, total (4AAP)	----	E562	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Volatile Organic Compounds (QC Lot: 1854663)											
VA25A1408-001	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: 1854663) - continued											
VA25A1408-001	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: 1854662)											
VA25A1408-001	Anonymous	VHw (C6-C10)	----	E581.VH+F1	100	µg/L	<100	<100	0.0%	30%	----
Glycols (QC Lot: 1853283)											
FJ2500266-001	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: 1848814)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1853450)						
Solids, total suspended [TSS]	----	E160	3	mg/L	<3.0	----
Physical Tests (QCLot: 1853454)						
Solids, total dissolved [TDS]	----	E162	10	mg/L	<10	----
Anions and Nutrients (QCLot: 1848775)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1848777)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1848778)						
Nitrogen, total	7727-37-9	E366	0.03	mg/L	<0.030	----
Anions and Nutrients (QCLot: 1848806)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1848807)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 1848808)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1848809)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1848810)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 1848811)						
Bromide	24959-67-9	E235.Br-L	0.05	mg/L	<0.050	----
Organic / Inorganic Carbon (QCLot: 1848779)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Sulfides (QCLot: 1853386)						
Sulfide, total (as S)	18496-25-8	E395	0.0015	mg/L	<0.0015	----
Total Metals (QCLot: 1849991)						
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: 1849991) - 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	# 0.0067	B
Manganese, total	7439-96-5	E420	0.0001	mg/L	# 0.00024	B
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: 1852032)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1849296)						
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: 1849296) - 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: 1852523)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Speciated Metals (QCLot: 1848694)						
Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.0005	mg/L	<0.00050	----
Aggregate Organics (QCLot: 1850899)						
Phenols, total (4AAP)	----	E562	0.001	mg/L	<0.0010	----
Volatile Organic Compounds (QCLot: 1854663)						
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: 1854663) - 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: 1854323)						
EPH (C10-C19)	----	E601A	250	µg/L	<250	----
EPH (C19-C32)	----	E601A	250	µg/L	<250	----
Hydrocarbons (QCLot: 1854662)						
VHw (C6-C10)	----	E581.VH+F1	100	µg/L	<100	----
Polycyclic Aromatic Hydrocarbons (QCLot: 1854324)						
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: 1854324) - 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: 1853283)						
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	----

Qualifiers

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

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: 1848814)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	500 mg/L	104	85.0	115	----
Physical Tests (QCLot: 1853450)									
Solids, total suspended [TSS]	----	E160	3	mg/L	150 mg/L	95.3	85.0	115	----
Physical Tests (QCLot: 1853454)									
Solids, total dissolved [TDS]	----	E162	10	mg/L	1000 mg/L	102	85.0	115	----
Anions and Nutrients (QCLot: 1848775)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.05 mg/L	90.5	80.0	120	----
Anions and Nutrients (QCLot: 1848777)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	103	85.0	115	----
Anions and Nutrients (QCLot: 1848778)									
Nitrogen, total	7727-37-9	E366	0.03	mg/L	0.5 mg/L	99.1	75.0	125	----
Anions and Nutrients (QCLot: 1848806)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1848807)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	99.4	90.0	110	----
Anions and Nutrients (QCLot: 1848808)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	99.0	90.0	110	----
Anions and Nutrients (QCLot: 1848809)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	98.6	90.0	110	----
Anions and Nutrients (QCLot: 1848810)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	96.8	90.0	110	----
Anions and Nutrients (QCLot: 1848811)									
Bromide	24959-67-9	E235.Br-L	0.05	mg/L	0.5 mg/L	96.9	85.0	115	----
Organic / Inorganic Carbon (QCLot: 1848779)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	102	80.0	120	----
Total Sulfides (QCLot: 1853386)									
Sulfide, total (as S)	18496-25-8	E395	0.0015	mg/L	0.08 mg/L	105	80.0	120	----
Total Metals (QCLot: 1849991)									

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: 1849991) - continued									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	105	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	104	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	107	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	102	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	100	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	102	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	102	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	105	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	100	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	99.6	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	101	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	106	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	99.4	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	100	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	106	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	99.9	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	103	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	109	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	104	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	102	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	105	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	97.8	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	100	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	106	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	93.7	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	103	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	100	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	96.5	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	105	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	102	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	101	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	100	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1849991) - continued									
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	99.7	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	97.4	80.0	120	----
Total Metals (QCLot: 1852032)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	91.7	80.0	120	----
Dissolved Metals (QCLot: 1849296)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	105	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	108	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	102	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	104	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	110	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	105	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	98.6	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	103	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	108	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	98.0	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	96.6	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	96.7	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	97.6	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	106	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	105	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	97.0	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	109	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	97.6	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	94.5	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	108	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	98.5	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	99.2	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	106	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	98.1	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	104	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	108	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	89.0	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: 1849296) - continued									
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	106	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	105	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	104	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	99.2	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	97.1	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	105	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	99.4	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	104	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	106	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	86.3	80.0	120	----
Speciated Metals (QCLot: 1848694)									
Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.0005	mg/L	0.25 mg/L	102	80.0	120	----
Aggregate Organics (QCLot: 1850899)									
Phenols, total (4AAP)	----	E562	0.001	mg/L	0.02 mg/L	96.4	85.0	115	----
Volatile Organic Compounds (QCLot: 1854663)									
Benzene	71-43-2	E611C	0.5	µg/L	100 µg/L	94.9	70.0	130	----
Bromodichloromethane	75-27-4	E611C	0.5	µg/L	100 µg/L	95.3	70.0	130	----
Bromoform	75-25-2	E611C	0.5	µg/L	100 µg/L	70.6	70.0	130	----
Carbon tetrachloride	56-23-5	E611C	0.5	µg/L	100 µg/L	89.9	70.0	130	----
Chlorobenzene	108-90-7	E611C	0.5	µg/L	100 µg/L	96.6	70.0	130	----
Chloroethane	75-00-3	E611C	0.5	µg/L	100 µg/L	103	60.0	140	----
Chloroform	67-66-3	E611C	0.5	µg/L	100 µg/L	97.4	70.0	130	----
Chloromethane	74-87-3	E611C	5	µg/L	100 µg/L	95.0	60.0	140	----
Dibromochloromethane	124-48-1	E611C	0.5	µg/L	100 µg/L	90.8	70.0	130	----
Dichlorobenzene, 1,2-	95-50-1	E611C	0.5	µg/L	100 µg/L	94.1	70.0	130	----
Dichlorobenzene, 1,3-	541-73-1	E611C	0.5	µg/L	100 µg/L	95.0	70.0	130	----
Dichlorobenzene, 1,4-	106-46-7	E611C	0.5	µg/L	100 µg/L	96.1	70.0	130	----
Dichloroethane, 1,1-	75-34-3	E611C	0.5	µg/L	100 µg/L	93.3	70.0	130	----
Dichloroethane, 1,2-	107-06-2	E611C	0.5	µg/L	100 µg/L	92.6	70.0	130	----
Dichloroethylene, 1,1-	75-35-4	E611C	0.5	µg/L	100 µg/L	94.4	70.0	130	----
Dichloroethylene, cis-1,2-	156-59-2	E611C	0.5	µg/L	100 µg/L	96.7	70.0	130	----
Dichloroethylene, trans-1,2-	156-60-5	E611C	0.5	µg/L	100 µg/L	97.6	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: 1854663) - continued									
Dichloromethane	75-09-2	E611C	1	µg/L	100 µg/L	99.3	70.0	130	----
Dichloropropane, 1,2-	78-87-5	E611C	0.5	µg/L	100 µg/L	93.3	70.0	130	----
Dichloropropylene, cis-1,3-	10061-01-5	E611C	0.5	µg/L	100 µg/L	86.4	70.0	130	----
Dichloropropylene, trans-1,3-	10061-02-6	E611C	0.5	µg/L	100 µg/L	76.5	70.0	130	----
Ethylbenzene	100-41-4	E611C	0.5	µg/L	100 µg/L	93.1	70.0	130	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611C	0.5	µg/L	100 µg/L	96.5	70.0	130	----
Styrene	100-42-5	E611C	0.5	µg/L	100 µg/L	90.9	70.0	130	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611C	0.5	µg/L	100 µg/L	91.9	70.0	130	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611C	0.2	µg/L	100 µg/L	94.2	70.0	130	----
Tetrachloroethylene	127-18-4	E611C	0.5	µg/L	100 µg/L	91.6	70.0	130	----
Toluene	108-88-3	E611C	0.4	µg/L	100 µg/L	95.0	70.0	130	----
Trichloroethane, 1,1,1-	71-55-6	E611C	0.5	µg/L	100 µg/L	91.4	70.0	130	----
Trichloroethane, 1,1,2-	79-00-5	E611C	0.5	µg/L	100 µg/L	96.0	70.0	130	----
Trichloroethylene	79-01-6	E611C	0.5	µg/L	100 µg/L	97.1	70.0	130	----
Trichlorofluoromethane	75-69-4	E611C	0.5	µg/L	100 µg/L	99.3	60.0	140	----
Vinyl chloride	75-01-4	E611C	0.4	µg/L	100 µg/L	94.8	60.0	140	----
Xylene, m+p-	179601-23-1	E611C	0.4	µg/L	200 µg/L	94.5	70.0	130	----
Xylene, o-	95-47-6	E611C	0.3	µg/L	100 µg/L	92.4	70.0	130	----
Hydrocarbons (QCLot: 1854323)									
EPH (C10-C19)	----	E601A	250	µg/L	6490 µg/L	110	70.0	130	----
EPH (C19-C32)	----	E601A	250	µg/L	3360 µg/L	109	70.0	130	----
Hydrocarbons (QCLot: 1854662)									
VHw (C6-C10)	----	E581.VH+F1	100	µg/L	6310 µg/L	82.8	70.0	130	----
Polycyclic Aromatic Hydrocarbons (QCLot: 1854324)									
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	100	60.0	130	----
Acridine	260-94-6	E641A	0.01	µg/L	0.5 µg/L	104	60.0	130	----
Anthracene	120-12-7	E641A	0.01	µg/L	0.5 µg/L	93.2	60.0	130	----
Benz(a)anthracene	56-55-3	E641A	0.01	µg/L	0.5 µg/L	82.2	60.0	130	----
Benzo(a)pyrene	50-32-8	E641A	0.005	µg/L	0.5 µg/L	90.5	60.0	130	----
Benzo(b+j)fluoranthene	n/a	E641A	0.01	µg/L	0.5 µg/L	96.1	60.0	130	----
Benzo(g,h,i)perylene	191-24-2	E641A	0.01	µg/L	0.5 µg/L	104	60.0	130	----
Benzo(k)fluoranthene	207-08-9	E641A	0.01	µg/L	0.5 µg/L	111	60.0	130	----
Chrysene	218-01-9	E641A	0.01	µg/L	0.5 µg/L	102	60.0	130	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Polycyclic Aromatic Hydrocarbons (QCLot: 1854324) - continued									
Dibenz(a,h)anthracene	53-70-3	E641A	0.005	µg/L	0.5 µg/L	106	60.0	130	----
Fluoranthene	206-44-0	E641A	0.01	µg/L	0.5 µg/L	106	60.0	130	----
Fluorene	86-73-7	E641A	0.01	µg/L	0.5 µg/L	97.7	60.0	130	----
Indeno(1,2,3-c,d)pyrene	193-39-5	E641A	0.01	µg/L	0.5 µg/L	90.7	60.0	130	----
Methylnaphthalene, 1-	90-12-0	E641A	0.01	µg/L	0.5 µg/L	101	60.0	130	----
Methylnaphthalene, 2-	91-57-6	E641A	0.01	µg/L	0.5 µg/L	108	60.0	130	----
Naphthalene	91-20-3	E641A	0.05	µg/L	0.5 µg/L	107	50.0	130	----
Phenanthrene	85-01-8	E641A	0.02	µg/L	0.5 µg/L	103	60.0	130	----
Pyrene	129-00-0	E641A	0.01	µg/L	0.5 µg/L	101	60.0	130	----
Quinoline	91-22-5	E641A	0.05	µg/L	0.5 µg/L	105	60.0	130	----
Glycols (QCLot: 1853283)									
Diethylene glycol	111-46-6	E680E	5	mg/L	25 mg/L	100.0	70.0	130	----
Ethylene glycol	107-21-1	E680E	5	mg/L	25 mg/L	102	70.0	130	----
Propylene glycol, 1,2-	57-55-6	E680E	5	mg/L	25 mg/L	101	70.0	130	----
Triethylene glycol	112-27-6	E680E	5	mg/L	25 mg/L	108	70.0	130	----

Matrix Spike (MS) Report

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

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1848775)										
VA25A1291-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0555 mg/L	0.05 mg/L	111	70.0	130	----
Anions and Nutrients (QCLot: 1848777)										
VA25A1291-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.100 mg/L	0.1 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 1848778)										
VA25A1457-001	Anonymous	Nitrogen, total	7727-37-9	E366	ND mg/L	----	ND	70.0	130	----
Anions and Nutrients (QCLot: 1848806)										
VA25A1387-002	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	2000 mg/L	2000 mg/L	99.8	75.0	125	----
Anions and Nutrients (QCLot: 1848807)										
VA25A1387-002	Anonymous	Chloride	16887-00-6	E235.Cl	1990 mg/L	2000 mg/L	99.7	75.0	125	----
Anions and Nutrients (QCLot: 1848808)										
VA25A1387-002	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	49.3 mg/L	50 mg/L	98.6	75.0	125	----
Anions and Nutrients (QCLot: 1848809)										
VA25A1387-002	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	9.95 mg/L	10 mg/L	99.5	75.0	125	----
Anions and Nutrients (QCLot: 1848810)										
VA25A1387-002	Anonymous	Fluoride	16984-48-8	E235.F	20.3 mg/L	20 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1848811)										
VA25A1387-002	Anonymous	Bromide	24959-67-9	E235.Br-L	9.73 mg/L	10 mg/L	97.3	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1848779)										
VA25A1457-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	5.24 mg/L	5 mg/L	105	70.0	130	----
Total Sulfides (QCLot: 1853386)										
VA25A1393-002	Anonymous	Sulfide, total (as S)	18496-25-8	E395	0.225 mg/L	0.2 mg/L	112	75.0	125	----
Total Metals (QCLot: 1849991)										
VA25A1464-001	Anonymous	Aluminum, total	7429-90-5	E420	ND mg/L	----	ND	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0993 mg/L	0.1 mg/L	99.3	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	0.189 mg/L	0.2 mg/L	94.6	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0461 mg/L	0.05 mg/L	92.2	70.0	130	----
		Boron, total	7440-42-8	E420	0.495 mg/L	0.5 mg/L	98.9	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.0201 mg/L	0.02 mg/L	101	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0501 mg/L	0.05 mg/L	100	70.0	130	----
		Chromium, total	7440-47-3	E420	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
Total Metals (QCLot: 1849991) - continued										
VA25A1464-001	Anonymous	Cobalt, total	7440-48-4	E420	ND mg/L	----	ND	70.0	130	----
		Copper, total	7440-50-8	E420	ND mg/L	----	ND	70.0	130	----
		Iron, total	7439-89-6	E420	ND mg/L	----	ND	70.0	130	----
		Lead, total	7439-92-1	E420	0.0939 mg/L	0.1 mg/L	93.9	70.0	130	----
		Lithium, total	7439-93-2	E420	0.480 mg/L	0.5 mg/L	96.0	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	ND mg/L	----	ND	70.0	130	----
		Molybdenum, total	7439-98-7	E420	ND mg/L	----	ND	70.0	130	----
		Nickel, total	7440-02-0	E420	ND mg/L	----	ND	70.0	130	----
		Phosphorus, total	7723-14-0	E420	48.4 mg/L	50 mg/L	96.9	70.0	130	----
		Potassium, total	7440-09-7	E420	ND mg/L	----	ND	70.0	130	----
		Rubidium, total	7440-17-7	E420	ND mg/L	----	ND	70.0	130	----
		Selenium, total	7782-49-2	E420	0.202 mg/L	0.2 mg/L	101	70.0	130	----
		Silicon, total	7440-21-3	E420	ND mg/L	----	ND	70.0	130	----
		Silver, total	7440-22-4	E420	0.0194 mg/L	0.02 mg/L	97.1	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	0.207 mg/L	0.2 mg/L	103	70.0	130	----
		Thallium, total	7440-28-0	E420	0.0187 mg/L	0.02 mg/L	93.4	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0982 mg/L	0.1 mg/L	98.2	70.0	130	----
		Tin, total	7440-31-5	E420	0.101 mg/L	0.1 mg/L	101	70.0	130	----
		Titanium, total	7440-32-6	E420	ND mg/L	----	ND	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0982 mg/L	0.1 mg/L	98.2	70.0	130	----
		Uranium, total	7440-61-1	E420	0.0196 mg/L	0.02 mg/L	98.2	70.0	130	----
		Vanadium, total	7440-62-2	E420	ND mg/L	----	ND	70.0	130	----
		Zinc, total	7440-66-6	E420	1.83 mg/L	2 mg/L	91.3	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.202 mg/L	0.2 mg/L	101	70.0	130	----
Total Metals (QCLot: 1852032)										
VA25A1485-005	Anonymous	Mercury, total	7439-97-6	E508	0.0000765 mg/L	0 mg/L	76.5	70.0	130	----
Dissolved Metals (QCLot: 1849296)										
VA25A1380-002	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.191 mg/L	0.2 mg/L	95.6	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0195 mg/L	0.02 mg/L	97.7	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0203 mg/L	0.02 mg/L	101	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	----	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0402 mg/L	0.04 mg/L	100	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00950 mg/L	0.01 mg/L	95.0	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.104 mg/L	0.1 mg/L	104	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00389 mg/L	0.004 mg/L	97.3	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0101 mg/L	0.01 mg/L	101	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0391 mg/L	0.04 mg/L	97.7	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0194 mg/L	0.02 mg/L	96.9	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1849296) - continued										
VA25A1380-002	Anonymous	Copper, dissolved	7440-50-8	E421	0.0188 mg/L	0.02 mg/L	93.9	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.89 mg/L	2 mg/L	94.6	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0201 mg/L	0.02 mg/L	101	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.104 mg/L	0.1 mg/L	104	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	0.0207 mg/L	0.02 mg/L	103	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0382 mg/L	0.04 mg/L	95.5	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.1 mg/L	10 mg/L	101	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.15 mg/L	4 mg/L	104	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0190 mg/L	0.02 mg/L	94.8	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0403 mg/L	0.04 mg/L	101	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.81 mg/L	10 mg/L	98.1	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00314 mg/L	0.004 mg/L	78.4	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	20.6 mg/L	20 mg/L	103	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0410 mg/L	0.04 mg/L	102	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00404 mg/L	0.004 mg/L	101	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0212 mg/L	0.02 mg/L	106	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0192 mg/L	0.02 mg/L	96.3	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0382 mg/L	0.04 mg/L	95.6	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0197 mg/L	0.02 mg/L	98.7	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00397 mg/L	0.004 mg/L	99.2	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.0983 mg/L	0.1 mg/L	98.3	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	0.0431 mg/L	0.04 mg/L	108	70.0	130	----
Dissolved Metals (QCLot: 1852523)										
VA25A1465-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000927 mg/L	0 mg/L	92.7	70.0	130	----
Speciated Metals (QCLot: 1848694)										
VA25A1262-001	Anonymous	Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.261 mg/L	0.25 mg/L	104	70.0	130	----
Aggregate Organics (QCLot: 1850899)										
VA25A1420-002	Anonymous	Phenols, total (4AAP)	----	E562	0.0192 mg/L	0.02 mg/L	95.8	75.0	125	----
Volatile Organic Compounds (QCLot: 1854663)										
VA25A1408-001	Anonymous	Benzene	71-43-2	E611C	95.1 µg/L	100 µg/L	95.1	60.0	140	----
		Bromodichloromethane	75-27-4	E611C	97.2 µg/L	100 µg/L	97.2	60.0	140	----
		Bromoform	75-25-2	E611C	70.6 µg/L	100 µg/L	70.6	60.0	140	----
		Carbon tetrachloride	56-23-5	E611C	87.2 µg/L	100 µg/L	87.2	60.0	140	----
		Chlorobenzene	108-90-7	E611C	95.6 µg/L	100 µg/L	95.6	60.0	140	----
		Chloroethane	75-00-3	E611C	99.9 µg/L	100 µg/L	99.9	50.0	150	----
		Chloroform	67-66-3	E611C	98.5 µg/L	100 µg/L	98.5	60.0	140	----
		Chloromethane	74-87-3	E611C	98.6 µg/L	100 µg/L	98.6	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: 1854663) - continued										
VA25A1408-001	Anonymous	Dibromochloromethane	124-48-1	E611C	92.3 µg/L	100 µg/L	92.3	60.0	140	----
		Dichlorobenzene, 1,2-	95-50-1	E611C	93.6 µg/L	100 µg/L	93.6	60.0	140	----
		Dichlorobenzene, 1,3-	541-73-1	E611C	91.5 µg/L	100 µg/L	91.5	60.0	140	----
		Dichlorobenzene, 1,4-	106-46-7	E611C	92.8 µg/L	100 µg/L	92.8	60.0	140	----
		Dichloroethane, 1,1-	75-34-3	E611C	92.9 µg/L	100 µg/L	92.9	60.0	140	----
		Dichloroethane, 1,2-	107-06-2	E611C	95.8 µg/L	100 µg/L	95.8	60.0	140	----
		Dichloroethylene, 1,1-	75-35-4	E611C	90.0 µg/L	100 µg/L	90.0	60.0	140	----
		Dichloroethylene, cis-1,2-	156-59-2	E611C	97.5 µg/L	100 µg/L	97.5	60.0	140	----
		Dichloroethylene, trans-1,2-	156-60-5	E611C	84.5 µg/L	100 µg/L	84.5	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	94.0 µg/L	100 µg/L	94.0	60.0	140	----
		Dichloropropylene, cis-1,3-	10061-01-5	E611C	86.0 µg/L	100 µg/L	86.0	60.0	140	----
		Dichloropropylene, trans-1,3-	10061-02-6	E611C	76.5 µg/L	100 µg/L	76.5	60.0	140	----
		Ethylbenzene	100-41-4	E611C	90.6 µg/L	100 µg/L	90.6	60.0	140	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611C	93.2 µg/L	100 µg/L	93.2	60.0	140	----
		Styrene	100-42-5	E611C	86.6 µg/L	100 µg/L	86.6	60.0	140	----
		Tetrachloroethane, 1,1,1,2-	630-20-6	E611C	91.2 µg/L	100 µg/L	91.2	60.0	140	----
		Tetrachloroethane, 1,1,2,2-	79-34-5	E611C	97.4 µg/L	100 µg/L	97.4	60.0	140	----
		Tetrachloroethylene	127-18-4	E611C	86.4 µg/L	100 µg/L	86.4	60.0	140	----
		Toluene	108-88-3	E611C	93.8 µg/L	100 µg/L	93.8	60.0	140	----
		Trichloroethane, 1,1,1-	71-55-6	E611C	88.7 µg/L	100 µg/L	88.7	60.0	140	----
		Trichloroethane, 1,1,2-	79-00-5	E611C	98.7 µg/L	100 µg/L	98.7	60.0	140	----
		Trichloroethylene	79-01-6	E611C	93.9 µg/L	100 µg/L	93.9	60.0	140	----
		Trichlorofluoromethane	75-69-4	E611C	94.1 µg/L	100 µg/L	94.1	50.0	150	----
		Vinyl chloride	75-01-4	E611C	88.7 µg/L	100 µg/L	88.7	50.0	150	----
		Xylene, m+p-	179601-23-1	E611C	183 µg/L	200 µg/L	91.3	60.0	140	----
		Xylene, o-	95-47-6	E611C	90.7 µg/L	100 µg/L	90.7	60.0	140	----
Hydrocarbons (QCLot: 1854662)										
VA25A1408-002	Anonymous	VHw (C6-C10)	----	E581.VH+F1	4590 µg/L	6310 µg/L	72.7	60.0	140	----

Chain of Custody (COC) / Analytical Request Form

COC Number: 23 - 1142879

Page of

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 Environmetal
Contact:
Phone:
Street:
City/Province:
Postal Code:

Invoice To: Same as Report To ☐ YES ☐ NO
Copy of Invoice with Report ☐ YES ☐ NO
Company:
Contact:

Project Information

ALS Client Code / QUOTE #:
Job / Project #: 11964
PO / AFE: 11964 - Task 40 - Phase 3 C4C
LSD:

ALS Lab Work Order # (ALS use only):

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)
Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A
☐ Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Turnaround Time (TAT) Requested

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

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

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm

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

AFFIX ALS BARCODE LABEL HERE (ALS use only)

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 metal + Hg	Dis metal + Hg	Total Hexachromium	Total Tri chromium	TSS, TDS, Alkalinity	Anion Scans	Total Sulfide	Nutrient	VOC / UPH	DOC	Oily Cov	General	DRevels	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	WLNG EOP	21-Jan-25	12:30			R	→														
	~~Equip~~																				
	PH: 8.9 Cond: 139 Temp 8.9 Turb: 6.2																				
	Trip blank	"	"																		

Environmental Division
Vancouver
Work Order Reference
VA25A1496

Telephone : +1 604 253 4188

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

Are samples taken from a Regulated DW System? ☐ YES ☐ NO
Are samples for human consumption/ use? ☐ YES ☐ NO

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

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED
Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				K			

SHIPMENT RELEASE (client use)

Date: Time: 18:30

INITIAL SHIPMENT RECEPTION (ALS use only)

Received by: Date: Time:

FINAL SHIPMENT RECEPTION (ALS use only)

Received by: Date: JAN 21 Time: 18:45

TIONS AND SAMPLING INFORMATION — WHITE - LABORATORY COPY — YELLOW - CLIENT COPY

JAN 2023 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

2025-1-21-Shafiei-2FF79

Project Component:	Tunnel	**Site Name:**	WLNG Treatment Discharge
Inspection Date:	01/21/2025	**Location:**	WLNG
Triton QP:	Farshad Shafiei	**Latitude/Longitude:**	49.669305 -123.249829
Temperature(c):	Low -4 High 2	**Permit:**	PE 110136
Weather Conditions:	Clear	**Ground Conditions:**	Wet

Observations

Time: 12:28:02 **Flow Volume (visual):** low

Notes:

Odour Detected?:	No	**Notes:**	
Unusual Colour?	No	**Notes:**	
Unusual Observations?	No	**Notes:**	
Sheen on Water?	No	**Notes:**	

Samples Collected - Parameters

Total Metals + Mercury	Yes	**General Parameters (Alkalinity)**	Yes	**Other Sample:**
Dissolved Metals + Mercury	Yes	**Total Sulfide, Unionized Sulfide**	Yes	
TSS	Yes	**Anions**	Yes	
TDS	Yes	**Total Trivalent Chromium**	Yes	**QA Samples:**
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: EOP

Description: Sampling location

Photo: 2

Location: COC

Description: Lab COC

Sign Off

Report Prepared By:	Farshad Shafiei	**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	**January 20, 2025 to January 26, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **February 3, 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 January 20 was 51,646 m^3.

Daily Volume Summary:

Table 1: Discharge Volumes Daily Summary

Date	Location	Volume (m3)	Comments
January 20	Woodfibre (WF)	351	None
January 21	WF	471	None
January 22	WF	487	None
January 23	WF	454	None
January 24	WF	456	None
January 25	WF	453	None
January 26	WF	573	None
	Total	3,245	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)
1/20/2025	0:00:00	7.1	0.616	0	51,646	11.4	114
1/20/2025	0:15:00	7.1	0.696	0	51,655	11.9	114
1/20/2025	0:30:00	7.1	0.348	0	51,662	12.7	255
1/20/2025	1:30:00	7.1	0.699	0	51,671	15.4	252
1/20/2025	1:45:00	7	0.711	0	51,682	15.6	253
1/20/2025	2:00:00	7	0.699	0	51,692	15.7	253
1/20/2025	3:15:00	7	0.000	0	51,695	17.6	251
1/20/2025	3:30:00	7	0.208	0	51,698	18.2	251
1/20/2025	3:45:00	7	0.578	0	51,707	18.4	255
1/20/2025	4:15:00	7	0.404	0	51,717	19.3	252
1/20/2025	5:15:00	7	0.790	0	51,726	20.5	252
1/20/2025	5:30:00	7	0.794	0	51,737	20.3	250
1/20/2025	5:45:00	7	0.767	0	51,749	19.7	249
1/20/2025	6:45:00	7	0.000	0	51,752	20.1	251
1/20/2025	7:00:00	7	0.193	0	51,756	19.5	250
1/20/2025	7:30:00	7	0.597	0	51,759	19	253
1/20/2025	7:45:00	7	0.714	0	51,767	19	252
1/20/2025	8:00:00	7	0.722	0	51,778	18.5	251
1/20/2025	8:15:00	7	0.692	0	51,789	17.9	255
1/20/2025	9:15:00	7	0.000	0	51,796	16.3	251
1/20/2025	9:30:00	7	0.000	0	51,796	16.3	250

FRONTIER-KEMPER MICHELS® joint venture		Eagle Mountain- Woodfibre Gas Pipeline Project- Tunnel Scope	
Title	**WoodFibre Weekly Water Discharge Report**	**Revision:**	**0**
Data Date Range	**January 20, 2025 to January 26, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **February 3, 2025**

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
1/20/2025	10:00:00	7.2	0.548	0	51,804	10.2	117
1/20/2025	10:15:00	7.2	0.722	0	51,814	9.9	118
1/20/2025	10:30:00	7.2	0.696	0	51,825	10.2	117
1/20/2025	10:45:00	7.1	0.000	0	51,832	10.7	117
1/20/2025	11:30:00	7.2	0.571	0.8	51,833	12.5	118
1/20/2025	11:45:00	7.2	0.662	0	51,843	10.2	119
1/20/2025	12:00:00	7.2	0.000	0.9	51,849	10.7	119
1/20/2025	12:30:00	7.2	0.707	4.1	51,854	10.1	117
1/20/2025	13:45:00	7.3	0.688	0	51,868	8.5	113
1/20/2025	14:00:00	7.3	0.711	1.5	51,879	9.3	111
1/20/2025	14:15:00	7.3	0.688	3.8	51,889	9.5	114
1/20/2025	14:45:00	7.1	0.000	3.3	51,895	10.7	115
1/20/2025	15:00:00	7.3	0.662	4	51,899	9.7	114
1/20/2025	17:30:00	7.2	0.733	0	51,914	10.4	115
1/20/2025	18:30:00	7.3	0.688	0	51,926	10.2	116
1/20/2025	18:45:00	7.3	0.703	0	51,937	10.3	114
1/20/2025	19:00:00	7.3	0.726	0	51,947	10.3	113
1/20/2025	19:15:00	7.3	0.684	0	51,958	10.4	115
1/20/2025	20:00:00	7.1	0.000	0	51,961	12.3	116
1/20/2025	20:15:00	7.2	0.824	0	51,962	12	118
1/20/2025	20:30:00	7.2	0.839	0	51,975	10.7	116
1/20/2025	21:15:00	7.2	0.851	1.4	51,985	10.8	118
1/20/2025	21:30:00	7.2	0.843	5.4	51,997	10.9	118
1/21/2025	0:00:00	7.2	0.696	11.4	52,015	10.5	114
1/21/2025	1:00:00	7.2	0.748	5.2	52,028	10.8	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	**January 20, 2025 to January 26, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **February 3, 2025**

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
1/21/2025	1:15:00	7.1	0.730	5.5	52,039	11.5	263
1/21/2025	1:30:00	7.1	0.764	5.4	52,050	12.8	262
1/21/2025	1:45:00	7.1	0.000	10.6	52,056	13.5	256
1/21/2025	2:30:00	7.2	0.767	5.8	52,059	11.2	116
1/21/2025	3:45:00	7.1	0.869	0	52,074	10.7	116
1/21/2025	4:00:00	7.2	0.847	0	52,086	10.8	117
1/21/2025	4:15:00	7.2	0.858	0	52,099	11	117
1/21/2025	5:00:00	7.2	0.786	0	52,109	11.2	119
1/21/2025	5:30:00	7.2	0.000	0	52,114	11.4	118
1/21/2025	5:45:00	7.1	0.295	3.2	52,114	11.7	113
1/21/2025	6:00:00	7.2	0.843	0	52,121	10.5	114
1/21/2025	6:15:00	7.2	0.907	0	52,134	10.2	111
1/21/2025	7:15:00	7.1	0.869	0	52,146	10.1	116
1/21/2025	7:30:00	7.2	0.866	0	52,159	10.2	117
1/21/2025	7:45:00	7.2	0.851	0	52,171	10.3	116
1/21/2025	8:45:00	7.1	0.805	0	52,183	10	113
1/21/2025	9:00:00	7.2	0.839	0	52,196	10	114
1/21/2025	10:00:00	7.2	0.832	0	52,202	13.1	116
1/21/2025	10:15:00	7.2	0.854	0	52,215	10.4	118
1/21/2025	11:15:00	7.2	0.854	0	52,223	10.5	118
1/21/2025	11:30:00	7.2	0.828	0	52,236	10.5	117
1/21/2025	12:30:00	7.1	0.816	0	52,246	12.4	118
1/21/2025	12:45:00	7.1	0.828	0	52,258	10.7	119
1/21/2025	13:00:00	7.3	0.000	0	52,267	10.7	117
1/21/2025	13:15:00	7.3	0.000	0	52,267	10.9	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	**January 20, 2025 to January 26, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **February 3, 2025**

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
1/21/2025	13:45:00	7.2	0.820	0	52,274	10.7	118
1/21/2025	14:00:00	7.2	0.813	0	52,286	10.7	118
1/21/2025	14:15:00	7.2	0.809	0	52,298	10.7	117
1/21/2025	14:30:00	7.2	0.824	0	52,310	10.7	118
1/21/2025	15:15:00	7.1	0.673	0	52,313	11.7	118
1/21/2025	15:30:00	7.2	0.000	0	52,324	10.5	117
1/21/2025	15:45:00	7.3	0.000	0	52,325	10.7	117
1/21/2025	16:30:00	7.2	0.813	0	52,326	12.3	119
1/21/2025	16:45:00	7.2	0.820	0	52,339	10.6	119
1/21/2025	17:00:00	7.2	0.000	0	52,345	10.9	118
1/21/2025	17:30:00	7.2	0.798	0	52,352	10.6	119
1/21/2025	17:45:00	7.2	0.268	0	52,361	10.7	119
1/21/2025	18:00:00	7.2	0.813	0	52,371	10.6	119
1/21/2025	19:00:00	7.1	0.798	0	52,388	10.6	119
1/21/2025	20:15:00	7.1	0.771	0	52,399	14.5	256
1/21/2025	20:30:00	7.1	0.805	0	52,412	10.5	119
1/21/2025	20:45:00	7.2	0.340	0	52,423	10.5	119
1/21/2025	21:45:00	7.1	0.000	0	52,429	11	119
1/21/2025	22:00:00	7.1	0.801	0	52,436	10.4	118
1/21/2025	22:15:00	7.1	0.779	0	52,449	10.5	118
1/21/2025	22:30:00	7.1	0.790	0	52,461	10.5	119
1/21/2025	23:30:00	7.1	0.794	0	52,474	10.2	116
1/21/2025	23:45:00	7.1	0.809	0	52,486	10.2	117
1/22/2025	0:45:00	7.1	0.805	0	52,496	10.3	119
1/22/2025	1:00:00	7.1	0.809	0	52,508	10.4	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	**January 20, 2025 to January 26, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **February 3, 2025**

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
1/22/2025	1:15:00	7.1	0.295	0	52,517	11	116
1/22/2025	2:30:00	7	0.801	0	52,528	10.3	119
1/22/2025	2:45:00	7.1	0.782	0	52,531	10.5	117
1/22/2025	3:45:00	7.1	0.801	0	52,541	11.4	117
1/22/2025	4:00:00	7.1	0.336	0	52,552	10.4	118
1/22/2025	4:15:00	7.1	0.816	0	52,561	10.3	117
1/22/2025	4:30:00	7.1	0.790	0	52,573	10.4	118
1/22/2025	5:15:00	7.1	0.809	0	52,582	10.4	119
1/22/2025	5:30:00	7.1	0.809	0	52,595	10.4	119
1/22/2025	5:45:00	7.2	0.843	0	52,609	10.2	119
1/22/2025	6:30:00	7.1	0.280	0	52,614	10.4	119
1/22/2025	6:45:00	7.1	0.877	0	52,618	10.4	119
1/22/2025	7:30:00	7.1	0.888	0	52,631	10.2	119
1/22/2025	7:45:00	7.1	0.911	0	52,645	10.2	119
1/22/2025	8:00:00	7.1	0.900	0	52,658	10.2	119
1/22/2025	8:45:00	7.1	0.881	0	52,666	10.2	117
1/22/2025	9:00:00	7.1	0.885	0	52,679	9.9	117
1/22/2025	9:15:00	7.1	0.329	0	52,689	10.7	118
1/22/2025	10:00:00	7	0.892	0	52,697	9.9	118
1/22/2025	10:15:00	7.1	0.869	0	52,710	9.9	120
1/22/2025	12:15:00	7	0.881	0	52,726	9.9	119
1/22/2025	12:30:00	7.1	0.321	0	52,737	10.6	119
1/22/2025	13:30:00	7.1	0.907	0	52,741	11.2	118
1/22/2025	13:45:00	7.1	0.922	0	52,754	10.1	118
1/22/2025	14:00:00	7.1	0.900	0	52,768	10.1	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	**January 20, 2025 to January 26, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **February 3, 2025**

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
1/22/2025	15:00:00	7.1	0.828	0	52,780	10.8	119
1/22/2025	15:15:00	7.1	0.900	0	52,793	10.4	119
1/22/2025	16:00:00	7.1	0.378	0	52,807	10.5	119
1/22/2025	16:15:00	7.1	0.000	0	52,811	10.8	119
1/22/2025	16:45:00	7.1	0.903	0	52,820	10.5	119
1/22/2025	17:00:00	7.1	0.862	0	52,834	10.5	119
1/22/2025	17:15:00	7.1	0.915	0	52,847	10.5	119
1/22/2025	18:00:00	7.1	0.873	0	52,861	10.5	119
1/22/2025	18:30:00	7.1	0.847	0	52,866	10.6	119
1/22/2025	18:45:00	7.1	0.344	0	52,876	10.9	119
1/22/2025	19:00:00	7.1	0.854	0	52,887	10.4	119
1/22/2025	19:15:00	7.1	0.896	0	52,900	10.4	120
1/22/2025	20:15:00	7	0.340	0	52,907	11.1	119
1/22/2025	20:30:00	7	0.000	0	52,909	10.8	119
1/22/2025	20:45:00	7.1	0.888	0	52,921	10.2	118
1/22/2025	21:30:00	7	0.892	0	52,931	10.2	118
1/22/2025	21:45:00	7.1	0.892	0	52,945	10.2	117
1/22/2025	22:00:00	7.1	0.896	0	52,958	10.2	117
1/22/2025	23:15:00	7.1	0.851	0	52,971	10.3	119
1/22/2025	23:30:00	7.1	0.000	0	52,983	10.3	119
1/23/2025	0:45:00	7	0.885	0	52,994	10.6	119
1/23/2025	1:00:00	7.1	0.873	0	53,007	10.8	119
1/23/2025	1:15:00	7.1	0.858	0	53,020	10.9	119
1/23/2025	2:00:00	7.1	0.329	0	53,029	11.2	118
1/23/2025	2:15:00	7.1	0.832	0	53,038	10.6	116

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
1/23/2025	3:15:00	7.1	0.000	0	53,048	11.4	119
1/23/2025	3:30:00	7.1	0.858	0	53,051	11	119
1/23/2025	3:45:00	7.1	0.862	0	53,064	10.7	113
1/23/2025	4:00:00	7.1	0.858	0	53,077	10.8	117
1/23/2025	4:30:00	7.1	0.862	0	53,082	11.2	117
1/23/2025	4:45:00	7	0.355	0	53,087	11	116
1/23/2025	5:45:00	7	0.862	0	53,096	10.9	119
1/23/2025	6:00:00	7.1	0.854	0	53,108	10.9	119
1/23/2025	7:30:00	7	0.824	0	53,134	10.5	118
1/23/2025	7:45:00	7.1	0.851	0	53,146	10.6	118
1/23/2025	8:00:00	7.1	0.839	0	53,159	10.6	117
1/23/2025	9:30:00	7	0.843	0	53,170	10	111
1/23/2025	9:45:00	7	0.000	0	53,176	10.1	111
1/23/2025	10:15:00	7	0.851	0	53,183	9.9	111
1/23/2025	10:30:00	7.1	0.832	0	53,196	10.2	110
1/23/2025	11:30:00	7	0.907	0	53,215	10.2	111
1/23/2025	11:45:00	7	0.892	0	53,228	10.4	110
1/23/2025	12:30:00	7	0.877	0	53,238	10.4	111
1/23/2025	12:45:00	7	0.000	0	53,246	11.1	116
1/23/2025	13:15:00	7	0.873	0	53,251	10.9	117
1/23/2025	13:30:00	7.1	0.212	0	53,259	11	118
1/23/2025	13:45:00	7.1	0.873	0	53,271	11	118
1/23/2025	14:45:00	7	0.839	0	53,284	11.3	119
1/23/2025	15:00:00	7.1	0.420	0	53,294	12	119
1/23/2025	15:15:00	7.1	0.835	0.4	53,303	11.4	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	**January 20, 2025 to January 26, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **February 3, 2025**

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
1/23/2025	16:00:00	7.1	0.000	1.2	53,312	11.6	119
1/23/2025	16:15:00	7	0.507	4.2	53,315	11.6	119
1/23/2025	16:30:00	7	0.900	3.7	53,321	11.4	119
1/23/2025	16:45:00	7.1	0.907	2.5	53,335	11.4	119
1/23/2025	18:15:00	7	0.888	0	53,353	11.4	119
1/23/2025	18:30:00	7	0.900	0	53,361	11.3	119
1/23/2025	18:45:00	7.1	0.915	0	53,374	11.3	119
1/23/2025	19:00:00	7.1	0.922	0	53,388	11.5	119
1/23/2025	20:15:00	7	0.000	0	53,403	11.3	116
1/23/2025	20:45:00	7	0.900	0	53,414	10.8	115
1/23/2025	21:30:00	7	0.892	0	53,418	11.8	118
1/23/2025	22:15:00	7	0.892	0	53,435	10.3	115
1/23/2025	22:30:00	7.1	0.862	0	53,448	10.4	117
1/24/2025	0:00:00	7	0.325	0	53,457	10.4	113
1/24/2025	0:15:00	7	0.858	0	53,468	9.9	116
1/24/2025	0:30:00	7.1	0.854	0	53,481	10	117
1/24/2025	0:45:00	7.1	0.877	0	53,494	10.1	117
1/24/2025	1:30:00	7	0.847	0	53,503	12	119
1/24/2025	1:45:00	7	0.000	0	53,503	11.2	118
1/24/2025	2:00:00	7	0.877	0	53,515	10.2	117
1/24/2025	2:45:00	7	0.866	0	53,520	10.3	119
1/24/2025	3:00:00	7	0.336	0	53,529	10.7	116
1/24/2025	4:00:00	7	0.881	0	53,550	10.3	118
1/24/2025	4:15:00	7.1	0.869	0	53,563	10.4	119
1/24/2025	5:00:00	7.1	0.340	0	53,572	11.4	119

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
1/24/2025	5:30:00	7	0.000	0	53,579	13.2	117
1/24/2025	6:45:00	7	0.465	0	53,583	11	119
1/24/2025	7:00:00	7	0.862	0	53,595	10.1	118
1/24/2025	7:45:00	7	0.888	0	53,598	10.3	119
1/24/2025	8:00:00	7	0.869	0	53,612	10	118
1/24/2025	8:15:00	7.1	0.873	0	53,624	10.1	119
1/24/2025	9:00:00	7	0.336	0	53,628	10.3	119
1/24/2025	9:15:00	7	0.858	0	53,636	10	119
1/24/2025	9:30:00	7	0.869	0	53,649	10.1	119
1/24/2025	10:30:00	7	0.851	0	53,660	10.2	119
1/24/2025	10:45:00	7	0.869	0	53,673	10.2	119
1/24/2025	12:00:00	7	0.786	0	53,682	14.9	253
1/24/2025	13:15:00	7	0.998	0	53,700	10.9	119
1/24/2025	13:30:00	7	0.987	0	53,715	11.1	119
1/24/2025	14:45:00	7	0.971	0	53,724	11.3	121
1/24/2025	15:00:00	7	0.919	0	53,738	11.4	119
1/24/2025	16:15:00	7	0.370	0	53,755	12	119
1/24/2025	16:30:00	7	0.892	0	53,766	11.2	119
1/24/2025	17:15:00	7	0.000	0	53,772	11.6	119
1/24/2025	17:45:00	7	0.903	0	53,784	10.9	118
1/24/2025	18:00:00	7	0.911	0	53,797	10.9	119
1/24/2025	18:15:00	7	0.896	0	53,811	10.9	119
1/24/2025	19:00:00	7	0.423	0	53,817	11.4	119
1/24/2025	19:15:00	7	0.866	0	53,827	10.8	119
1/24/2025	20:15:00	7	0.892	0	53,836	10.4	119

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
1/24/2025	20:30:00	7	0.355	0	53,846	11.4	119
1/24/2025	20:45:00	7	0.907	0	53,858	10.3	117
1/24/2025	21:00:00	7	0.000	0	53,861	10.9	119
1/24/2025	21:45:00	7	0.885	0	53,867	11.4	113
1/24/2025	22:00:00	7	0.896	0	53,880	9.9	116
1/24/2025	22:45:00	7	0.321	0	53,894	10.3	116
1/24/2025	23:00:00	7	0.869	0	53,906	10	117
1/24/2025	23:45:00	7.1	0.881	0	53,913	12.1	119
1/25/2025	0:00:00	7	0.896	0	53,926	10.2	118
1/25/2025	1:15:00	7	0.000	0	53,938	11.7	119
1/25/2025	1:30:00	7	0.866	0	53,939	12	119
1/25/2025	1:45:00	7	0.892	0	53,952	10.4	119
1/25/2025	2:00:00	7	0.881	0	53,965	10.6	119
1/25/2025	2:45:00	7	0.435	0	53,970	11.3	119
1/25/2025	3:00:00	7	0.873	0	53,981	10.6	119
1/25/2025	4:15:00	7	0.873	0	53,991	10.3	118
1/25/2025	4:30:00	7	0.386	0	54,004	10.3	118
1/25/2025	4:45:00	7	0.869	0	54,012	10.2	118
1/25/2025	5:00:00	7	0.854	0	54,025	10.3	118
1/25/2025	5:30:00	7.1	0.000	0	54,028	12	118
1/25/2025	5:45:00	7	0.000	0	54,028	12.6	119
1/25/2025	6:30:00	7	0.352	0	54,030	10.6	119
1/25/2025	6:45:00	7	0.877	0	54,039	10.4	116
1/25/2025	7:30:00	7	0.881	0	54,048	10.6	119
1/25/2025	7:45:00	7	0.881	0	54,061	10.3	118

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
1/25/2025	8:45:00	7	0.885	0	54,083	10.1	117
1/25/2025	9:00:00	7	0.174	0	54,093	10.1	118
1/25/2025	10:15:00	7	0.885	0	54,107	10	114
1/25/2025	10:45:00	7	0.813	0	54,121	10.2	116
1/25/2025	11:45:00	7	0.934	0	54,137	10.7	118
1/25/2025	12:00:00	7	0.832	0	54,144	10.7	118
1/25/2025	12:15:00	7	0.900	0	54,158	10.8	116
1/25/2025	12:30:00	7	0.869	0	54,165	10.9	116
1/25/2025	12:45:00	7	0.839	0	54,178	8.4	116
1/25/2025	13:00:00	7	0.881	0	54,191	8.6	116
1/25/2025	14:00:00	7	0.809	0	54,198	13.6	256
1/25/2025	14:15:00	7	0.828	0	54,205	9.6	119
1/25/2025	14:30:00	7	0.903	0	54,218	10.8	119
1/25/2025	16:00:00	6.9	0.877	0	54,223	10.8	119
1/25/2025	16:15:00	7	0.915	0	54,237	11.1	119
1/25/2025	16:30:00	7	0.000	0	54,241	11.3	119
1/25/2025	16:45:00	7	0.000	0	54,241	12.2	119
1/25/2025	17:00:00	6.9	0.000	0	54,241	13.2	119
1/25/2025	17:15:00	10	0.000	0	54,241	16.1	119
1/25/2025	17:45:00	7.4	0.979	0	54,255	11.1	119
1/25/2025	18:00:00	7.4	0.960	0	54,269	11.1	119
1/25/2025	19:30:00	7.5	0.869	0	54,284	10.9	119
1/25/2025	19:45:00	7.5	0.888	0	54,297	10.8	118
1/25/2025	20:15:00	7.5	0.801	0	54,309	11.9	118
1/25/2025	21:30:00	7.5	0.000	0	54,319	10.7	118

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
1/25/2025	21:45:00	7.5	0.824	0	54,319	12	118
1/25/2025	22:00:00	7.5	0.930	0	54,333	10.4	116
1/25/2025	22:15:00	7.5	0.820	0	54,346	10.3	116
1/25/2025	22:30:00	7.5	0.745	0	54,354	11.3	114
1/25/2025	22:45:00	7.5	0.828	0	54,366	10.2	115
1/25/2025	23:45:00	7.5	0.839	0	54,379	10.2	119
1/26/2025	0:00:00	7.5	0.869	0	54,387	10.5	119
1/26/2025	0:15:00	7.5	0.930	0	54,400	10.3	118
1/26/2025	1:00:00	7.5	0.000	0	54,404	11.8	119
1/26/2025	1:15:00	7.5	0.000	0	54,404	12	119
1/26/2025	1:30:00	7.5	0.979	0	54,414	10	118
1/26/2025	1:45:00	7.4	0.352	0	54,425	10.7	118
1/26/2025	2:00:00	7.5	0.703	0	54,433	10	117
1/26/2025	3:00:00	7.5	0.722	0	54,443	9.8	119
1/26/2025	3:15:00	7.5	0.866	0	54,455	9.9	118
1/26/2025	4:00:00	7.5	1.058	0	54,471	9.8	119
1/26/2025	4:15:00	7.5	0.692	0	54,485	9.7	117
1/26/2025	5:30:00	7.5	0.858	0	54,491	9.3	113
1/26/2025	5:45:00	7.5	0.828	0	54,504	9.3	113
1/26/2025	6:00:00	7.5	0.816	0	54,516	9.4	116
1/26/2025	6:30:00	7.5	0.869	0	54,525	9.6	117
1/26/2025	8:00:00	7.5	0.979	0	54,539	9.7	118
1/26/2025	8:15:00	7.5	0.983	0	54,553	9.8	119
1/26/2025	8:30:00	7.5	1.232	0	54,571	9.8	118
1/26/2025	10:00:00	7.5	1.270	0	54,594	9.6	118

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
1/26/2025	10:15:00	7.5	1.164	0	54,606	9.6	117
1/26/2025	10:30:00	7.5	1.051	0	54,623	9.8	118
1/26/2025	10:45:00	7.5	1.172	0	54,640	9.9	117
1/26/2025	12:00:00	7.5	1.191	0	54,658	10.2	119
1/26/2025	12:15:00	7.5	1.130	0	54,675	10.3	119
1/26/2025	13:45:00	7.5	0.578	0	54,695	10.9	119
1/26/2025	14:00:00	7.5	1.089	0	54,711	10.6	119
1/26/2025	14:15:00	7.5	1.157	0	54,728	10.6	119
1/26/2025	14:30:00	7.5	1.126	0	54,745	10.6	117
1/26/2025	15:45:00	7.5	1.130	0	54,750	11.2	121
1/26/2025	16:00:00	7.5	1.126	0	54,767	10.8	119
1/26/2025	16:15:00	7.5	0.541	0	54,780	11.1	119
1/26/2025	16:30:00	7.5	1.130	0	54,796	10.8	119
1/26/2025	17:30:00	7.5	0.605	0	54,799	15.2	245
1/26/2025	17:45:00	7.5	0.000	0	54,805	11.2	119
1/26/2025	18:00:00	7.5	0.578	0	54,806	11.9	119
1/26/2025	18:15:00	7.5	1.179	0	54,823	10.8	119
1/26/2025	18:30:00	7.5	1.123	0	54,840	10.8	119
1/26/2025	18:45:00	7.5	1.153	0	54,858	10.9	119
1/26/2025	20:15:00	7.5	0.624	0	54,875	11.6	119
1/26/2025	20:30:00	7.5	1.168	0	54,888	10.5	118
1/26/2025	20:45:00	7.5	1.108	0	54,905	10.4	117
1/26/2025	21:00:00	7.5	1.081	0	54,921	10.4	117
1/26/2025	22:15:00	7.4	0.000	0	54,926	13.6	259
1/26/2025	22:30:00	7.5	0.627	0	54,934	10.7	119

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
1/26/2025	22:45:00	7.5	1.130	0	54,950	10.3	119
1/26/2025	23:45:00	7.5	1.153	0	54,960	10.3	119

Table 3. In-Situ Parameters

Date	Time	Temperature °C	DO mg/L	Conductivity SPC-uS/cm	SAL-ppt	pH	ORP (mV)	NTU
01/20/2025	05:29:42PM	9.8	11.66	143.3	0.07	7.91	124.6	5.08
01/21/2025	08:39:25AM	9.5	11.51	137.2	0.06	7.65	129.5	0.14
01/22/2025	02:35:57PM	11.5	11.70	156.5	0.07	7.93	114.9	2.61
01/23/2025	09:23:12AM	11.3	11.32	142.2	0.07	7.66	118.1	1.12
01/24/2025	05:27:51PM	12.6	10.85	145.7	0.07	8.00	110.0	0.85
01/25/2025	01:35:02PM	9.7	12.13	142.3	0.07	7.81	120.6	0.86
01/26/2025	10:35:30AM	10.0	11.97	130.0	0.06	7.65	130.0	0.37

3. Calibration Log:

Table 4. Calibration Log

Date	Unit	pH	Conductivity/Temp.	Salinity	NTU
1/22/2025	YSI	✓	✓	✓	✓
1/22/2025	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)
1/20/2025	0:00:00	7.1	0.616	0	51,646	Open	11.4	114
1/20/2025	0:15:00	7.1	0.696	0	51,655	Open	11.9	114
1/20/2025	0:30:00	7.1	0.348	0	51,662	Open	12.7	255
1/20/2025	0:45:00	7.1	0.000	0	51,665	Closed	13.3	252
1/20/2025	1:00:00	7	0.000	0	51,665	Closed	13.7	252
1/20/2025	1:15:00	7	0.000	0	51,665	Closed	13.8	250
1/20/2025	1:30:00	7.1	0.699	0	51,671	Open	15.4	252
1/20/2025	1:45:00	7	0.711	0	51,682	Open	15.6	253
1/20/2025	2:00:00	7	0.699	0	51,692	Open	15.7	253
1/20/2025	2:15:00	7	0.000	0	51,695	Closed	15.9	253
1/20/2025	2:30:00	7	0.000	0	51,695	Closed	16.6	255
1/20/2025	2:45:00	7	0.000	0	51,695	Closed	16.7	252
1/20/2025	3:00:00	7	0.000	0	51,695	Closed	16.9	251
1/20/2025	3:15:00	7	0.000	0	51,695	Open	17.6	251
1/20/2025	3:30:00	7	0.208	0	51,698	Open	18.2	251
1/20/2025	3:45:00	7	0.578	0	51,707	Open	18.4	255
1/20/2025	4:00:00	7	0.042	0	51,710	Closed	18.5	251
1/20/2025	4:15:00	7	0.404	0	51,717	Open	19.3	252
1/20/2025	4:30:00	7	0.000	0	51,718	Closed	19.1	119
1/20/2025	4:45:00	7	0.000	0	51,718	Closed	19.1	119
1/20/2025	5:00:00	7	0.000	0	51,718	Closed	19.1	119
1/20/2025	5:15:00	7	0.790	0	51,726	Open	20.5	252
1/20/2025	5:30:00	7	0.794	0	51,737	Open	20.3	250
1/20/2025	5:45:00	7	0.767	0	51,749	Open	19.7	249
1/20/2025	6:00:00	7	0.000	0	51,751	Closed	19.2	253

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Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
1/20/2025	6:15:00	7	0.000	0	51,751	Closed	19.1	255
1/20/2025	6:30:00	7	0.000	0	51,751	Closed	19.2	253
1/20/2025	6:45:00	7	0.000	0	51,752	Open	20.1	251
1/20/2025	7:00:00	7	0.193	0	51,756	Open	19.5	250
1/20/2025	7:15:00	7	0.000	0	51,756	Closed	19.1	252
1/20/2025	7:30:00	7	0.597	0	51,759	Open	19	253
1/20/2025	7:45:00	7	0.714	0	51,767	Open	19	252
1/20/2025	8:00:00	7	0.722	0	51,778	Open	18.5	251
1/20/2025	8:15:00	7	0.692	0	51,789	Open	17.9	255
1/20/2025	8:30:00	7	0.000	0	51,796	Closed	18.3	248
1/20/2025	8:45:00	7	0.000	0	51,796	Closed	17.5	250
1/20/2025	9:00:00	7	0.000	0	51,796	Closed	16.7	250
1/20/2025	9:15:00	7	0.000	0	51,796	Open	16.3	251
1/20/2025	9:30:00	7	0.000	0	51,796	Open	16.3	250
1/20/2025	9:45:00	7	0.000	0	51,796	Closed	17.3	252
1/20/2025	10:00:00	7.2	0.548	0	51,804	Open	10.2	117
1/20/2025	10:15:00	7.2	0.722	0	51,814	Open	9.9	118
1/20/2025	10:30:00	7.2	0.696	0	51,825	Open	10.2	117
1/20/2025	10:45:00	7.1	0.000	0	51,832	Open	10.7	117
1/20/2025	11:00:00	7.3	0.620	28	51,833	Closed	9.9	118
1/20/2025	11:15:00	7.2	0.000	22.4	51,833	Closed	12	118
1/20/2025	11:30:00	7.2	0.571	0.8	51,833	Open	12.5	118
1/20/2025	11:45:00	7.2	0.662	0	51,843	Open	10.2	119
1/20/2025	12:00:00	7.2	0.000	0.9	51,849	Open	10.7	119
1/20/2025	12:15:00	7.2	0.000	5.3	51,851	Closed	10.1	115
1/20/2025	12:30:00	7.2	0.707	4.1	51,854	Open	10.1	117
1/20/2025	12:45:00	7.2	0.000	59.6	51,862	Closed	10.3	117

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Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
1/20/2025	13:00:00	7.3	0.000	60.4	51,862	Closed	8.8	116
1/20/2025	13:15:00	7.4	0.000	59.6	51,862	Closed	8.2	114
1/20/2025	13:30:00	7.2	0.000	0	51,864	Closed	10	113
1/20/2025	13:45:00	7.3	0.688	0	51,868	Open	8.5	113
1/20/2025	14:00:00	7.3	0.711	1.5	51,879	Open	9.3	111
1/20/2025	14:15:00	7.3	0.688	3.8	51,889	Open	9.5	114
1/20/2025	14:30:00	7.3	0.000	3.6	51,895	Closed	9.9	116
1/20/2025	14:45:00	7.1	0.000	3.3	51,895	Open	10.7	115
1/20/2025	15:00:00	7.3	0.662	4	51,899	Open	9.7	114
1/20/2025	15:15:00	7.3	0.563	208.4	51,901	Closed	10.2	114
1/20/2025	15:30:00	7.4	0.238	141	51,901	Closed	10.2	114
1/20/2025	15:45:00	7.2	0.499	111.8	51,901	Closed	10.9	256
1/20/2025	16:00:00	7.1	0.000	102.2	51,901	Closed	11.3	251
1/20/2025	16:15:00	7.1	0.163	72.3	51,901	Closed	17.5	114
1/20/2025	16:30:00	7	0.000	64.5	51,901	Closed	16.9	114
1/20/2025	16:45:00	7.2	0.000	75.1	51,901	Closed	16.2	113
1/20/2025	17:00:00	7.2	0.000	2.4	51,905	Closed	10.3	113
1/20/2025	17:15:00	7.1	0.000	1.8	51,905	Closed	12	262
1/20/2025	17:30:00	7.2	0.733	0	51,914	Open	10.4	115
1/20/2025	17:45:00	7.4	0.000	400.8	51,922	Closed	10.3	113
1/20/2025	18:00:00	7.5	0.151	77.4	51,923	Closed	10.3	114
1/20/2025	18:15:00	7.4	0.000	5	51,923	Closed	10.5	114
1/20/2025	18:30:00	7.3	0.688	0	51,926	Open	10.2	116
1/20/2025	18:45:00	7.3	0.703	0	51,937	Open	10.3	114
1/20/2025	19:00:00	7.3	0.726	0	51,947	Open	10.3	113
1/20/2025	19:15:00	7.3	0.684	0	51,958	Open	10.4	115
1/20/2025	19:30:00	7.2	0.000	0	51,960	Closed	10.9	116

FRONTIER-KEMPER MICHELS® joint venture		Eagle Mountain- Woodfibre Gas Pipeline Project- Tunnel Scope	
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Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
1/20/2025	19:45:00	7.1	0.219	37.7	51,960	Closed	11.6	115
1/20/2025	20:00:00	7.1	0.000	0	51,961	Open	12.3	116
1/20/2025	20:15:00	7.2	0.824	0	51,962	Open	12	118
1/20/2025	20:30:00	7.2	0.839	0	51,975	Open	10.7	116
1/20/2025	20:45:00	7.1	0.000	0	51,978	Closed	11.1	116
1/20/2025	21:00:00	7.1	0.000	0	51,978	Closed	11.8	118
1/20/2025	21:15:00	7.2	0.851	1.4	51,985	Open	10.8	118
1/20/2025	21:30:00	7.2	0.843	5.4	51,997	Open	10.9	118
1/20/2025	21:45:00	7.2	0.000	8	52,009	Closed	11	116
1/20/2025	22:00:00	7.1	0.000	8.2	52,009	Closed	12.1	117
1/20/2025	22:15:00	7.1	0.000	8.6	52,009	Closed	12.8	255
1/20/2025	22:30:00	7.2	0.185	15.2	52,013	Closed	10.7	117
1/20/2025	22:45:00	7.3	0.616	21.5	52,013	Closed	10.9	117
1/20/2025	23:00:00	7.3	0.000	17.6	52,013	Closed	10.7	115
1/20/2025	23:15:00	7.3	0.722	16.7	52,013	Closed	10.5	114
1/20/2025	23:30:00	7.2	0.680	14.3	52,013	Closed	11.1	114
1/20/2025	23:45:00	7.2	0.299	11.3	52,013	Closed	10.5	114
1/21/2025	0:00:00	7.2	0.696	11.4	52,015	Open	10.5	114
1/21/2025	0:15:00	7.2	0.000	9.3	52,024	Closed	10.5	113
1/21/2025	0:30:00	7.1	0.000	9.3	52,024	Closed	10.7	111
1/21/2025	0:45:00	7.1	0.000	9.1	52,024	Closed	10.9	114
1/21/2025	1:00:00	7.2	0.748	5.2	52,028	Open	10.8	116
1/21/2025	1:15:00	7.1	0.730	5.5	52,039	Open	11.5	263
1/21/2025	1:30:00	7.1	0.764	5.4	52,050	Open	12.8	262
1/21/2025	1:45:00	7.1	0.000	10.6	52,056	Open	13.5	256
1/21/2025	2:00:00	7.2	0.748	13	52,057	Closed	10.6	113
1/21/2025	2:15:00	7.1	0.000	10.7	52,058	Closed	10.8	115

FRONTIER-KEMPER MICHELS® joint venture		Eagle Mountain- Woodfibre Gas Pipeline Project- Tunnel Scope	
Title	**WoodFibre Weekly Water Discharge Report**	**Revision:**	**0**
Data Date Range	**January 20, 2025 to January 26, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **February 3, 2025**

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
1/21/2025	2:30:00	7.2	0.767	5.8	52,059	Open	11.2	116
1/21/2025	2:45:00	7.2	0.000	4.4	52,064	Closed	10.9	116
1/21/2025	3:00:00	7.1	0.000	4.2	52,064	Closed	12.6	117
1/21/2025	3:15:00	7.1	0.000	1.2	52,069	Closed	10.8	115
1/21/2025	3:30:00	7.1	0.000	1.5	52,069	Closed	11.1	115
1/21/2025	3:45:00	7.1	0.869	0	52,074	Open	10.7	116
1/21/2025	4:00:00	7.2	0.847	0	52,086	Open	10.8	117
1/21/2025	4:15:00	7.2	0.858	0	52,099	Open	11	117
1/21/2025	4:30:00	7.1	0.000	0	52,105	Closed	11.3	118
1/21/2025	4:45:00	7.1	0.000	0	52,105	Closed	12.1	118
1/21/2025	5:00:00	7.2	0.786	0	52,109	Open	11.2	119
1/21/2025	5:15:00	7.2	0.000	0	52,114	Closed	11.1	117
1/21/2025	5:30:00	7.2	0.000	0	52,114	Open	11.4	118
1/21/2025	5:45:00	7.1	0.295	3.2	52,114	Open	11.7	113
1/21/2025	6:00:00	7.2	0.843	0	52,121	Open	10.5	114
1/21/2025	6:15:00	7.2	0.907	0	52,134	Open	10.2	111
1/21/2025	6:30:00	7.1	0.000	0	52,140	Closed	10.2	111
1/21/2025	6:45:00	7.1	0.000	0	52,140	Closed	10.5	113
1/21/2025	7:00:00	7.1	0.000	0	52,140	Closed	11.1	115
1/21/2025	7:15:00	7.1	0.869	0	52,146	Open	10.1	116
1/21/2025	7:30:00	7.2	0.866	0	52,159	Open	10.2	117
1/21/2025	7:45:00	7.2	0.851	0	52,171	Open	10.3	116
1/21/2025	8:00:00	7.1	0.000	0	52,173	Closed	10.9	117
1/21/2025	8:15:00	7.1	0.000	0	52,173	Closed	11.7	117
1/21/2025	8:30:00	7.1	0.000	0	52,173	Closed	12.5	116
1/21/2025	8:45:00	7.1	0.805	0	52,183	Open	10	113
1/21/2025	9:00:00	7.2	0.839	0	52,196	Open	10	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	**January 20, 2025 to January 26, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **February 3, 2025**

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
1/21/2025	9:15:00	7.2	0.000	0	52,202	Closed	10.4	116
1/21/2025	9:30:00	7.1	0.000	0	52,202	Closed	11.1	116
1/21/2025	9:45:00	7.1	0.000	0	52,202	Closed	11.9	117
1/21/2025	10:00:00	7.2	0.832	0	52,202	Open	13.1	116
1/21/2025	10:15:00	7.2	0.854	0	52,215	Open	10.4	118
1/21/2025	10:30:00	7.3	0.000	0	52,220	Closed	10.5	116
1/21/2025	10:45:00	7.1	0.000	0	52,220	Closed	11.1	117
1/21/2025	11:00:00	7.1	0.000	0	52,220	Closed	13.7	250
1/21/2025	11:15:00	7.2	0.854	0	52,223	Open	10.5	118
1/21/2025	11:30:00	7.2	0.828	0	52,236	Open	10.5	117
1/21/2025	11:45:00	7.2	0.000	0	52,244	Closed	10.7	117
1/21/2025	12:00:00	7.1	0.000	0	52,244	Closed	11.5	118
1/21/2025	12:15:00	7.1	0.000	0	52,244	Closed	12.9	256
1/21/2025	12:30:00	7.1	0.816	0	52,246	Open	12.4	118
1/21/2025	12:45:00	7.1	0.828	0	52,258	Open	10.7	119
1/21/2025	13:00:00	7.3	0.000	0	52,267	Open	10.7	117
1/21/2025	13:15:00	7.3	0.000	0	52,267	Open	10.9	118
1/21/2025	13:30:00	7.2	0.000	0	52,267	Closed	11.8	118
1/21/2025	13:45:00	7.2	0.820	0	52,274	Open	10.7	118
1/21/2025	14:00:00	7.2	0.813	0	52,286	Open	10.7	118
1/21/2025	14:15:00	7.2	0.809	0	52,298	Open	10.7	117
1/21/2025	14:30:00	7.2	0.824	0	52,310	Open	10.7	118
1/21/2025	14:45:00	7.1	0.000	0	52,311	Closed	11.4	119
1/21/2025	15:00:00	7.1	0.000	0	52,311	Closed	12.4	119
1/21/2025	15:15:00	7.1	0.673	0	52,313	Open	11.7	118
1/21/2025	15:30:00	7.2	0.000	0	52,324	Open	10.5	117
1/21/2025	15:45:00	7.3	0.000	0	52,325	Open	10.7	117

FRONTIER-KEMPER MICHELS® joint venture		Eagle Mountain- Woodfibre Gas Pipeline Project- Tunnel Scope	
Title	**WoodFibre Weekly Water Discharge Report**	**Revision:**	**0**
Data Date Range	**January 20, 2025 to January 26, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **February 3, 2025**

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
1/21/2025	16:00:00	7.1	0.000	0	52,325	Closed	11.5	117
1/21/2025	16:15:00	7.1	0.000	0	52,325	Closed	12.4	119
1/21/2025	16:30:00	7.2	0.813	0	52,326	Open	12.3	119
1/21/2025	16:45:00	7.2	0.820	0	52,339	Open	10.6	119
1/21/2025	17:00:00	7.2	0.000	0	52,345	Open	10.9	118
1/21/2025	17:15:00	7.1	0.000	0	52,345	Closed	11.8	118
1/21/2025	17:30:00	7.2	0.798	0	52,352	Open	10.6	119
1/21/2025	17:45:00	7.2	0.268	0	52,361	Open	10.7	119
1/21/2025	18:00:00	7.2	0.813	0	52,371	Open	10.6	119
1/21/2025	18:15:00	7.1	0.000	0	52,377	Closed	11	118
1/21/2025	18:30:00	7.1	0.000	0	52,377	Closed	11.9	119
1/21/2025	18:45:00	7	0.000	0	52,377	Closed	12.9	259
1/21/2025	19:00:00	7.1	0.798	0	52,388	Open	10.6	119
1/21/2025	19:15:00	7.2	0.000	0	52,399	Closed	10.6	119
1/21/2025	19:30:00	7.1	0.000	0	52,399	Closed	11.4	119
1/21/2025	19:45:00	7.1	0.000	0	52,399	Closed	12.4	261
1/21/2025	20:00:00	7	0.000	0	52,399	Closed	13.3	259
1/21/2025	20:15:00	7.1	0.771	0	52,399	Open	14.5	256
1/21/2025	20:30:00	7.1	0.805	0	52,412	Open	10.5	119
1/21/2025	20:45:00	7.2	0.340	0	52,423	Open	10.5	119
1/21/2025	21:00:00	7.1	0.000	0	52,428	Closed	10.7	119
1/21/2025	21:15:00	7.1	0.000	0	52,428	Closed	11.6	119
1/21/2025	21:30:00	7	0.000	0	52,428	Closed	12.6	119
1/21/2025	21:45:00	7.1	0.000	0	52,429	Open	11	119
1/21/2025	22:00:00	7.1	0.801	0	52,436	Open	10.4	118
1/21/2025	22:15:00	7.1	0.779	0	52,449	Open	10.5	118
1/21/2025	22:30:00	7.1	0.790	0	52,461	Open	10.5	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	**January 20, 2025 to January 26, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **February 3, 2025**

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
1/21/2025	22:45:00	7.1	0.000	0	52,462	Closed	11.2	119
1/21/2025	23:00:00	7.1	0.000	0	52,466	Closed	10.9	116
1/21/2025	23:15:00	7	0.000	0	52,466	Closed	11.3	116
1/21/2025	23:30:00	7.1	0.794	0	52,474	Open	10.2	116
1/21/2025	23:45:00	7.1	0.809	0	52,486	Open	10.2	117
1/22/2025	0:00:00	7.1	0.000	0	52,487	Closed	10.7	117
1/22/2025	0:15:00	7	0.000	0	52,487	Closed	11.4	117
1/22/2025	0:30:00	7	0.000	0	52,487	Closed	12.3	119
1/22/2025	0:45:00	7.1	0.805	0	52,496	Open	10.3	119
1/22/2025	1:00:00	7.1	0.809	0	52,508	Open	10.4	118
1/22/2025	1:15:00	7.1	0.295	0	52,517	Open	11	116
1/22/2025	1:30:00	7.1	0.000	0	52,520	Closed	10.6	117
1/22/2025	1:45:00	7	0.000	0	52,520	Closed	11.8	257
1/22/2025	2:00:00	7	0.000	0	52,520	Closed	12.3	259
1/22/2025	2:15:00	7	0.000	0	52,520	Closed	13.1	259
1/22/2025	2:30:00	7	0.801	0	52,528	Open	10.3	119
1/22/2025	2:45:00	7.1	0.782	0	52,531	Open	10.5	117
1/22/2025	3:00:00	7.1	0.000	0	52,540	Closed	10.5	117
1/22/2025	3:15:00	7	0.000	0	52,540	Closed	11.3	119
1/22/2025	3:30:00	7	0.000	0	52,540	Closed	12.3	118
1/22/2025	3:45:00	7.1	0.801	0	52,541	Open	11.4	117
1/22/2025	4:00:00	7.1	0.336	0	52,552	Open	10.4	118
1/22/2025	4:15:00	7.1	0.816	0	52,561	Open	10.3	117
1/22/2025	4:30:00	7.1	0.790	0	52,573	Open	10.4	118
1/22/2025	4:45:00	7	0.000	0	52,574	Closed	11.1	119
1/22/2025	5:00:00	7	0.000	0	52,574	Closed	12	119
1/22/2025	5:15:00	7.1	0.809	0	52,582	Open	10.4	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	**January 20, 2025 to January 26, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **February 3, 2025**

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
1/22/2025	5:30:00	7.1	0.809	0	52,595	Open	10.4	119
1/22/2025	5:45:00	7.2	0.843	0	52,609	Open	10.2	119
1/22/2025	6:00:00	7.1	0.000	0	52,611	Closed	10.9	119
1/22/2025	6:15:00	7	0.000	0	52,611	Closed	12	119
1/22/2025	6:30:00	7.1	0.280	0	52,614	Open	10.4	119
1/22/2025	6:45:00	7.1	0.877	0	52,618	Open	10.4	119
1/22/2025	7:00:00	7	0.000	0	52,621	Closed	10.8	119
1/22/2025	7:15:00	7	0.000	0	52,621	Closed	11.8	119
1/22/2025	7:30:00	7.1	0.888	0	52,631	Open	10.2	119
1/22/2025	7:45:00	7.1	0.911	0	52,645	Open	10.2	119
1/22/2025	8:00:00	7.1	0.900	0	52,658	Open	10.2	119
1/22/2025	8:15:00	7.1	0.000	0	52,663	Closed	10.6	118
1/22/2025	8:30:00	7	0.000	0	52,663	Closed	11.1	116
1/22/2025	8:45:00	7.1	0.881	0	52,666	Open	10.2	117
1/22/2025	9:00:00	7.1	0.885	0	52,679	Open	9.9	117
1/22/2025	9:15:00	7.1	0.329	0	52,689	Open	10.7	118
1/22/2025	9:30:00	7	0.000	0	52,689	Closed	11.1	117
1/22/2025	9:45:00	7	0.000	0	52,689	Closed	11.9	119
1/22/2025	10:00:00	7	0.892	0	52,697	Open	9.9	118
1/22/2025	10:15:00	7.1	0.869	0	52,710	Open	9.9	120
1/22/2025	10:30:00	7.1	0.000	0	52,718	Closed	10.3	119
1/22/2025	10:45:00	7	0.000	0	52,718	Closed	11.3	119
1/22/2025	11:00:00	7	0.000	0	52,718	Closed	12.2	120
1/22/2025	11:15:00	6.9	0.000	0	52,718	Closed	12.8	117
1/22/2025	11:30:00	6.9	0.000	0	52,718	Closed	13.3	119
1/22/2025	11:45:00	6.9	0.000	0	52,718	Closed	14	251
1/22/2025	12:00:00	6.9	0.000	0	52,718	Closed	14.7	250

FRONTIER-KEMPER MICHELS® joint venture		Eagle Mountain- Woodfibre Gas Pipeline Project- Tunnel Scope	
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Data Date Range	**January 20, 2025 to January 26, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **February 3, 2025**

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
1/22/2025	12:15:00	7	0.881	0	52,726	Open	9.9	119
1/22/2025	12:30:00	7.1	0.321	0	52,737	Open	10.6	119
1/22/2025	12:45:00	7	0.000	0	52,739	Closed	10.6	119
1/22/2025	13:00:00	7	0.000	0	52,739	Closed	11.5	119
1/22/2025	13:15:00	7	0.000	0	52,739	Closed	15.1	254
1/22/2025	13:30:00	7.1	0.907	0	52,741	Open	11.2	118
1/22/2025	13:45:00	7.1	0.922	0	52,754	Open	10.1	118
1/22/2025	14:00:00	7.1	0.900	0	52,768	Open	10.1	119
1/22/2025	14:15:00	7.1	0.000	0	52,776	Closed	10.5	118
1/22/2025	14:30:00	7	0.000	0	52,776	Closed	11.4	119
1/22/2025	14:45:00	7	0.000	0	52,776	Closed	15.8	263
1/22/2025	15:00:00	7.1	0.828	0	52,780	Open	10.8	119
1/22/2025	15:15:00	7.1	0.900	0	52,793	Open	10.4	119
1/22/2025	15:30:00	7.1	0.000	0	52,799	Closed	10.9	119
1/22/2025	15:45:00	7	0.000	0	52,799	Closed	11.9	119
1/22/2025	16:00:00	7.1	0.378	0	52,807	Open	10.5	119
1/22/2025	16:15:00	7.1	0.000	0	52,811	Open	10.8	119
1/22/2025	16:30:00	7	0.000	0	52,811	Closed	11.7	119
1/22/2025	16:45:00	7.1	0.903	0	52,820	Open	10.5	119
1/22/2025	17:00:00	7.1	0.862	0	52,834	Open	10.5	119
1/22/2025	17:15:00	7.1	0.915	0	52,847	Open	10.5	119
1/22/2025	17:30:00	7	0.000	0	52,850	Closed	11.6	119
1/22/2025	17:45:00	7	0.000	0	52,850	Closed	12.7	119
1/22/2025	18:00:00	7.1	0.873	0	52,861	Open	10.5	119
1/22/2025	18:15:00	7	0.000	0	52,863	Closed	11.3	119
1/22/2025	18:30:00	7.1	0.847	0	52,866	Open	10.6	119
1/22/2025	18:45:00	7.1	0.344	0	52,876	Open	10.9	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	**January 20, 2025 to January 26, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **February 3, 2025**

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
1/22/2025	19:00:00	7.1	0.854	0	52,887	Open	10.4	119
1/22/2025	19:15:00	7.1	0.896	0	52,900	Open	10.4	120
1/22/2025	19:30:00	7.1	0.000	0	52,905	Closed	10.9	119
1/22/2025	19:45:00	7	0.000	0	52,905	Closed	12	119
1/22/2025	20:00:00	7	0.000	0	52,905	Closed	15.3	258
1/22/2025	20:15:00	7	0.340	0	52,907	Open	11.1	119
1/22/2025	20:30:00	7	0.000	0	52,909	Open	10.8	119
1/22/2025	20:45:00	7.1	0.888	0	52,921	Open	10.2	118
1/22/2025	21:00:00	7	0.000	0	52,925	Closed	10.8	119
1/22/2025	21:15:00	7	0.000	0	52,925	Closed	11.8	119
1/22/2025	21:30:00	7	0.892	0	52,931	Open	10.2	118
1/22/2025	21:45:00	7.1	0.892	0	52,945	Open	10.2	117
1/22/2025	22:00:00	7.1	0.896	0	52,958	Open	10.2	117
1/22/2025	22:15:00	7.1	0.000	0	52,964	Closed	11.7	116
1/22/2025	22:30:00	7	0.000	0	52,964	Closed	13.2	113
1/22/2025	22:45:00	7	0.000	0	52,964	Closed	14.3	116
1/22/2025	23:00:00	7.3	0.000	0	52,964	Closed	16.2	118
1/22/2025	23:15:00	7.1	0.851	0	52,971	Open	10.3	119
1/22/2025	23:30:00	7.1	0.000	0	52,983	Open	10.3	119
1/22/2025	23:45:00	7	0.000	0	52,983	Closed	11.2	118
1/23/2025	0:00:00	7.1	0.000	0	52,984	Closed	12.7	118
1/23/2025	0:15:00	7	0.000	0	52,984	Closed	13.8	119
1/23/2025	0:30:00	7	0.000	0	52,984	Closed	14.5	251
1/23/2025	0:45:00	7	0.885	0	52,994	Open	10.6	119
1/23/2025	1:00:00	7.1	0.873	0	53,007	Open	10.8	119
1/23/2025	1:15:00	7.1	0.858	0	53,020	Open	10.9	119
1/23/2025	1:30:00	7.1	0.000	0	53,026	Closed	11.3	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	**January 20, 2025 to January 26, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **February 3, 2025**

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
1/23/2025	1:45:00	7	0.000	0	53,026	Closed	12.1	119
1/23/2025	2:00:00	7.1	0.329	0	53,029	Open	11.2	118
1/23/2025	2:15:00	7.1	0.832	0	53,038	Open	10.6	116
1/23/2025	2:30:00	7.1	0.000	0	53,047	Closed	10.9	117
1/23/2025	2:45:00	7	0.000	0	53,047	Closed	11.7	119
1/23/2025	3:00:00	7	0.000	0	53,047	Closed	12.7	119
1/23/2025	3:15:00	7.1	0.000	0	53,048	Open	11.4	119
1/23/2025	3:30:00	7.1	0.858	0	53,051	Open	11	119
1/23/2025	3:45:00	7.1	0.862	0	53,064	Open	10.7	113
1/23/2025	4:00:00	7.1	0.858	0	53,077	Open	10.8	117
1/23/2025	4:15:00	7.2	0.000	0	53,081	Closed	11.1	115
1/23/2025	4:30:00	7.1	0.862	0	53,082	Open	11.2	117
1/23/2025	4:45:00	7	0.355	0	53,087	Open	11	116
1/23/2025	5:00:00	7	0.000	0	53,090	Closed	11	117
1/23/2025	5:15:00	7	0.000	0	53,090	Closed	11.8	118
1/23/2025	5:30:00	7	0.000	0	53,090	Closed	12.7	119
1/23/2025	5:45:00	7	0.862	0	53,096	Open	10.9	119
1/23/2025	6:00:00	7.1	0.854	0	53,108	Open	10.9	119
1/23/2025	6:15:00	7.1	0.000	0	53,120	Closed	10.9	119
1/23/2025	6:30:00	7	0.000	0	53,120	Closed	11.8	119
1/23/2025	6:45:00	7	0.000	0	53,120	Closed	12.8	119
1/23/2025	7:00:00	7.1	0.000	0	53,124	Closed	10.9	115
1/23/2025	7:15:00	7	0.000	0	53,124	Closed	11.3	116
1/23/2025	7:30:00	7	0.824	0	53,134	Open	10.5	118
1/23/2025	7:45:00	7.1	0.851	0	53,146	Open	10.6	118
1/23/2025	8:00:00	7.1	0.839	0	53,159	Open	10.6	117
1/23/2025	8:15:00	7	0.000	0	53,163	Closed	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	**January 20, 2025 to January 26, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **February 3, 2025**

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
1/23/2025	8:30:00	7	0.000	0	53,163	Closed	11.7	115
1/23/2025	8:45:00	6.9	0.000	0	53,163	Closed	11.8	111
1/23/2025	9:00:00	6.9	0.000	0	53,163	Closed	12	112
1/23/2025	9:15:00	6.9	0.000	0	53,163	Closed	12.5	111
1/23/2025	9:30:00	7	0.843	0	53,170	Open	10	111
1/23/2025	9:45:00	7	0.000	0	53,176	Open	10.1	111
1/23/2025	10:00:00	7	0.000	0	53,176	Closed	10.8	111
1/23/2025	10:15:00	7	0.851	0	53,183	Open	9.9	111
1/23/2025	10:30:00	7.1	0.832	0	53,196	Open	10.2	110
1/23/2025	10:45:00	7.1	0.000	0	53,208	Closed	10.2	110
1/23/2025	11:00:00	7	0.000	0	53,208	Closed	10.6	111
1/23/2025	11:15:00	7	0.000	0	53,208	Closed	10.9	111
1/23/2025	11:30:00	7	0.907	0	53,215	Open	10.2	111
1/23/2025	11:45:00	7	0.892	0	53,228	Open	10.4	110
1/23/2025	12:00:00	7	0.000	0	53,229	Closed	10.7	110
1/23/2025	12:15:00	7	0.000	0	53,229	Closed	10.9	111
1/23/2025	12:30:00	7	0.877	0	53,238	Open	10.4	111
1/23/2025	12:45:00	7	0.000	0	53,246	Open	11.1	116
1/23/2025	13:00:00	7	0.000	0	53,246	Closed	11.8	116
1/23/2025	13:15:00	7	0.873	0	53,251	Open	10.9	117
1/23/2025	13:30:00	7.1	0.212	0	53,259	Open	11	118
1/23/2025	13:45:00	7.1	0.873	0	53,271	Open	11	118
1/23/2025	14:00:00	7	0.000	0	53,275	Closed	11.6	118
1/23/2025	14:15:00	7	0.000	0	53,275	Closed	12.4	118
1/23/2025	14:30:00	7	0.000	0	53,275	Closed	13.3	261
1/23/2025	14:45:00	7	0.839	0	53,284	Open	11.3	119
1/23/2025	15:00:00	7.1	0.420	0	53,294	Open	12	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	**January 20, 2025 to January 26, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **February 3, 2025**

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
1/23/2025	15:15:00	7.1	0.835	0.4	53,303	Open	11.4	119
1/23/2025	15:30:00	7.1	0.000	4.6	53,311	Closed	11	119
1/23/2025	15:45:00	7	0.000	4.4	53,311	Closed	12.6	261
1/23/2025	16:00:00	7.1	0.000	1.2	53,312	Open	11.6	119
1/23/2025	16:15:00	7	0.507	4.2	53,315	Open	11.6	119
1/23/2025	16:30:00	7	0.900	3.7	53,321	Open	11.4	119
1/23/2025	16:45:00	7.1	0.907	2.5	53,335	Open	11.4	119
1/23/2025	17:00:00	7.1	0.000	1.1	53,348	Closed	11.4	119
1/23/2025	17:15:00	7	0.000	1	53,348	Closed	12.3	119
1/23/2025	17:30:00	7	0.000	1.1	53,348	Closed	13.2	260
1/23/2025	17:45:00	6.9	0.000	0.9	53,348	Closed	14.1	258
1/23/2025	18:00:00	6.9	0.000	0.8	53,348	Closed	14.9	257
1/23/2025	18:15:00	7	0.888	0	53,353	Open	11.4	119
1/23/2025	18:30:00	7	0.900	0	53,361	Open	11.3	119
1/23/2025	18:45:00	7.1	0.915	0	53,374	Open	11.3	119
1/23/2025	19:00:00	7.1	0.922	0	53,388	Open	11.5	119
1/23/2025	19:15:00	7.1	0.000	0	53,398	Closed	11.5	118
1/23/2025	19:30:00	7	0.000	0	53,398	Closed	12.2	119
1/23/2025	19:45:00	7	0.000	0	53,398	Closed	13.1	260
1/23/2025	20:00:00	6.9	0.000	0	53,398	Closed	15.2	264
1/23/2025	20:15:00	7	0.000	0	53,403	Open	11.3	116
1/23/2025	20:30:00	6.9	0.000	0	53,403	Closed	11.7	116
1/23/2025	20:45:00	7	0.900	0	53,414	Open	10.8	115
1/23/2025	21:00:00	7	0.000	0	53,416	Closed	11	116
1/23/2025	21:15:00	7	0.000	0	53,416	Closed	11.7	116
1/23/2025	21:30:00	7	0.892	0	53,418	Open	11.8	118
1/23/2025	21:45:00	7	0.000	0	53,425	Closed	10.7	116

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
1/23/2025	22:00:00	7	0.000	0	53,425	Closed	10.9	114
1/23/2025	22:15:00	7	0.892	0	53,435	Open	10.3	115
1/23/2025	22:30:00	7.1	0.862	0	53,448	Open	10.4	117
1/23/2025	22:45:00	7	0.000	0	53,453	Closed	10.7	117
1/23/2025	23:00:00	7	0.000	0	53,453	Closed	11.5	118
1/23/2025	23:15:00	7	0.000	0	53,453	Closed	12.3	118
1/23/2025	23:30:00	6.9	0.000	0	53,453	Closed	12.6	252
1/23/2025	23:45:00	6.9	0.000	0	53,453	Closed	12.7	256
1/24/2025	0:00:00	7	0.325	0	53,457	Open	10.4	113
1/24/2025	0:15:00	7	0.858	0	53,468	Open	9.9	116
1/24/2025	0:30:00	7.1	0.854	0	53,481	Open	10	117
1/24/2025	0:45:00	7.1	0.877	0	53,494	Open	10.1	117
1/24/2025	1:00:00	7.1	0.000	0	53,502	Closed	10.4	118
1/24/2025	1:15:00	7	0.000	0	53,502	Closed	11.3	118
1/24/2025	1:30:00	7	0.847	0	53,503	Open	12	119
1/24/2025	1:45:00	7	0.000	0	53,503	Open	11.2	118
1/24/2025	2:00:00	7	0.877	0	53,515	Open	10.2	117
1/24/2025	2:15:00	7	0.000	0	53,516	Closed	10.8	118
1/24/2025	2:30:00	7	0.000	0	53,516	Closed	11.8	119
1/24/2025	2:45:00	7	0.866	0	53,520	Open	10.3	119
1/24/2025	3:00:00	7	0.336	0	53,529	Open	10.7	116
1/24/2025	3:15:00	7.1	0.000	0	53,541	Closed	10.3	118
1/24/2025	3:30:00	7	0.000	0	53,541	Closed	11.1	118
1/24/2025	3:45:00	7	0.000	0	53,541	Closed	12.1	119
1/24/2025	4:00:00	7	0.881	0	53,550	Open	10.3	118
1/24/2025	4:15:00	7.1	0.869	0	53,563	Open	10.4	119
1/24/2025	4:30:00	7.1	0.000	0	53,571	Closed	10.6	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	**January 20, 2025 to January 26, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **February 3, 2025**

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
1/24/2025	4:45:00	7	0.000	0	53,571	Closed	11.5	119
1/24/2025	5:00:00	7.1	0.340	0	53,572	Open	11.4	119
1/24/2025	5:15:00	7	0.000	0	53,578	Closed	10.2	116
1/24/2025	5:30:00	7	0.000	0	53,579	Open	13.2	117
1/24/2025	5:45:00	7	0.000	0	53,579	Closed	12.4	118
1/24/2025	6:00:00	7	0.000	0	53,579	Closed	13.3	119
1/24/2025	6:15:00	7	0.000	0	53,579	Closed	14.1	256
1/24/2025	6:30:00	7	0.000	0	53,579	Closed	14.8	255
1/24/2025	6:45:00	7	0.465	0	53,583	Open	11	119
1/24/2025	7:00:00	7	0.862	0	53,595	Open	10.1	118
1/24/2025	7:15:00	7	0.000	0	53,596	Closed	10.8	119
1/24/2025	7:30:00	7	0.000	0	53,596	Closed	11.8	119
1/24/2025	7:45:00	7	0.888	0	53,598	Open	10.3	119
1/24/2025	8:00:00	7	0.869	0	53,612	Open	10	118
1/24/2025	8:15:00	7.1	0.873	0	53,624	Open	10.1	119
1/24/2025	8:30:00	7.1	0.000	0	53,625	Closed	10.9	119
1/24/2025	8:45:00	7	0.000	0	53,625	Closed	11.8	119
1/24/2025	9:00:00	7	0.336	0	53,628	Open	10.3	119
1/24/2025	9:15:00	7	0.858	0	53,636	Open	10	119
1/24/2025	9:30:00	7	0.869	0	53,649	Open	10.1	119
1/24/2025	9:45:00	7.1	0.000	0	53,653	Closed	10.6	119
1/24/2025	10:00:00	7	0.000	0	53,653	Closed	11.7	119
1/24/2025	10:15:00	7	0.000	0	53,653	Closed	12.8	119
1/24/2025	10:30:00	7	0.851	0	53,660	Open	10.2	119
1/24/2025	10:45:00	7	0.869	0	53,673	Open	10.2	119
1/24/2025	11:00:00	7.1	0.000	0	53,682	Closed	10.5	119
1/24/2025	11:15:00	7	0.000	0	53,682	Closed	11.5	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	**January 20, 2025 to January 26, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **February 3, 2025**

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
1/24/2025	11:30:00	7	0.000	0	53,682	Closed	12.6	119
1/24/2025	11:45:00	7	0.000	0	53,682	Closed	13.6	119
1/24/2025	12:00:00	7	0.786	0	53,682	Open	14.9	253
1/24/2025	12:15:00	7	0.000	0	53,689	Closed	10.4	119
1/24/2025	12:30:00	7	0.000	0	53,689	Closed	11.3	119
1/24/2025	12:45:00	7	0.000	0	53,689	Closed	12.5	119
1/24/2025	13:00:00	7	0.000	0	53,689	Closed	13.7	121
1/24/2025	13:15:00	7	0.998	0	53,700	Open	10.9	119
1/24/2025	13:30:00	7	0.987	0	53,715	Open	11.1	119
1/24/2025	13:45:00	7	0.000	0	53,718	Closed	11.7	119
1/24/2025	14:00:00	7	0.000	0	53,718	Closed	12.9	119
1/24/2025	14:15:00	7	0.000	0	53,718	Closed	14	121
1/24/2025	14:30:00	6.9	0.000	0	53,718	Closed	15	254
1/24/2025	14:45:00	7	0.971	0	53,724	Open	11.3	121
1/24/2025	15:00:00	7	0.919	0	53,738	Open	11.4	119
1/24/2025	15:15:00	7	0.000	0	53,745	Closed	11.7	119
1/24/2025	15:30:00	7	0.000	0	53,745	Closed	12.8	119
1/24/2025	15:45:00	7	0.000	0	53,745	Closed	14	121
1/24/2025	16:00:00	6.9	0.000	0	53,745	Closed	14.8	253
1/24/2025	16:15:00	7	0.370	0	53,755	Open	12	119
1/24/2025	16:30:00	7	0.892	0	53,766	Open	11.2	119
1/24/2025	16:45:00	7	0.000	0	53,768	Closed	11.9	119
1/24/2025	17:00:00	7	0.000	0	53,768	Closed	13	119
1/24/2025	17:15:00	7	0.000	0	53,772	Open	11.6	119
1/24/2025	17:30:00	7	0.000	0	53,772	Closed	13.7	258
1/24/2025	17:45:00	7	0.903	0	53,784	Open	10.9	118
1/24/2025	18:00:00	7	0.911	0	53,797	Open	10.9	119

FRONTIER-KEMPER MICHELS® joint venture		Eagle Mountain- Woodfibre Gas Pipeline Project- Tunnel Scope	
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Data Date Range	**January 20, 2025 to January 26, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **February 3, 2025**

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
1/24/2025	18:15:00	7	0.896	0	53,811	Open	10.9	119
1/24/2025	18:30:00	7	0.000	0	53,815	Closed	11.4	119
1/24/2025	18:45:00	7	0.000	0	53,815	Closed	12.5	119
1/24/2025	19:00:00	7	0.423	0	53,817	Open	11.4	119
1/24/2025	19:15:00	7	0.866	0	53,827	Open	10.8	119
1/24/2025	19:30:00	7	0.000	0	53,833	Closed	11.1	119
1/24/2025	19:45:00	7	0.000	0	53,833	Closed	12.1	118
1/24/2025	20:00:00	7	0.000	0	53,833	Closed	12.8	118
1/24/2025	20:15:00	7	0.892	0	53,836	Open	10.4	119
1/24/2025	20:30:00	7	0.355	0	53,846	Open	11.4	119
1/24/2025	20:45:00	7	0.907	0	53,858	Open	10.3	117
1/24/2025	21:00:00	7	0.000	0	53,861	Open	10.9	119
1/24/2025	21:15:00	7	0.000	0	53,866	Closed	10.2	116
1/24/2025	21:30:00	7	0.000	0	53,866	Closed	10.8	116
1/24/2025	21:45:00	7	0.885	0	53,867	Open	11.4	113
1/24/2025	22:00:00	7	0.896	0	53,880	Open	9.9	116
1/24/2025	22:15:00	7	0.000	0	53,890	Closed	10	116
1/24/2025	22:30:00	7	0.000	0	53,890	Closed	11.3	118
1/24/2025	22:45:00	7	0.321	0	53,894	Open	10.3	116
1/24/2025	23:00:00	7	0.869	0	53,906	Open	10	117
1/24/2025	23:15:00	7	0.000	0	53,913	Closed	10.4	118
1/24/2025	23:30:00	7	0.000	0	53,913	Closed	11.4	118
1/24/2025	23:45:00	7.1	0.881	0	53,913	Open	12.1	119
1/25/2025	0:00:00	7	0.896	0	53,926	Open	10.2	118
1/25/2025	0:15:00	7.1	0.000	0	53,937	Closed	10.4	119
1/25/2025	0:30:00	7	0.000	0	53,937	Closed	12.2	119
1/25/2025	0:45:00	7	0.000	0	53,937	Closed	13	259

FRONTIER-KEMPER MICHELS® joint venture		Eagle Mountain- Woodfibre Gas Pipeline Project- Tunnel Scope	
Title	**WoodFibre Weekly Water Discharge Report**	**Revision:**	**0**
Data Date Range	**January 20, 2025 to January 26, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **February 3, 2025**

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
1/25/2025	1:00:00	7	0.000	0	53,937	Closed	13.9	259
1/25/2025	1:15:00	7	0.000	0	53,938	Open	11.7	119
1/25/2025	1:30:00	7	0.866	0	53,939	Open	12	119
1/25/2025	1:45:00	7	0.892	0	53,952	Open	10.4	119
1/25/2025	2:00:00	7	0.881	0	53,965	Open	10.6	119
1/25/2025	2:15:00	7	0.000	0	53,967	Closed	11.3	119
1/25/2025	2:30:00	7	0.000	0	53,967	Closed	12.5	119
1/25/2025	2:45:00	7	0.435	0	53,970	Open	11.3	119
1/25/2025	3:00:00	7	0.873	0	53,981	Open	10.6	119
1/25/2025	3:15:00	7	0.000	0	53,983	Closed	11.1	116
1/25/2025	3:30:00	7	0.000	0	53,983	Closed	11.5	116
1/25/2025	3:45:00	7	0.000	0	53,986	Closed	10.6	118
1/25/2025	4:00:00	7	0.000	0	53,986	Closed	11.3	118
1/25/2025	4:15:00	7	0.873	0	53,991	Open	10.3	118
1/25/2025	4:30:00	7	0.386	0	54,004	Open	10.3	118
1/25/2025	4:45:00	7	0.869	0	54,012	Open	10.2	118
1/25/2025	5:00:00	7	0.854	0	54,025	Open	10.3	118
1/25/2025	5:15:00	7	0.000	0	54,028	Closed	11	119
1/25/2025	5:30:00	7.1	0.000	0	54,028	Open	12	118
1/25/2025	5:45:00	7	0.000	0	54,028	Open	12.6	119
1/25/2025	6:00:00	7	0.000	0	54,028	Closed	12.7	117
1/25/2025	6:15:00	7	0.000	0	54,028	Closed	13.4	119
1/25/2025	6:30:00	7	0.352	0	54,030	Open	10.6	119
1/25/2025	6:45:00	7	0.877	0	54,039	Open	10.4	116
1/25/2025	7:00:00	7	0.000	0	54,045	Closed	10.6	116
1/25/2025	7:15:00	7	0.000	0	54,045	Closed	11.4	117
1/25/2025	7:30:00	7	0.881	0	54,048	Open	10.6	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	**January 20, 2025 to January 26, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **February 3, 2025**

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
1/25/2025	7:45:00	7	0.881	0	54,061	Open	10.3	118
1/25/2025	8:00:00	7	0.000	0	54,072	Closed	10.4	119
1/25/2025	8:15:00	7	0.000	0	54,072	Closed	11.3	119
1/25/2025	8:30:00	7	0.000	0	54,072	Closed	12.2	119
1/25/2025	8:45:00	7	0.885	0	54,083	Open	10.1	117
1/25/2025	9:00:00	7	0.174	0	54,093	Open	10.1	118
1/25/2025	9:15:00	7	0.000	0	54,093	Closed	10.7	119
1/25/2025	9:30:00	7	0.000	0	54,093	Closed	12.1	256
1/25/2025	9:45:00	7	0.000	0	54,093	Closed	12.5	251
1/25/2025	10:00:00	6.9	0.873	0	54,093	Closed	9.7	113
1/25/2025	10:15:00	7	0.885	0	54,107	Open	10	114
1/25/2025	10:30:00	7	0.000	0	54,118	Closed	10.3	116
1/25/2025	10:45:00	7	0.813	0	54,121	Open	10.2	116
1/25/2025	11:00:00	7	0.000	0	54,127	Closed	10.7	116
1/25/2025	11:15:00	7	0.000	0	54,127	Closed	15.5	259
1/25/2025	11:30:00	6.9	0.000	0	54,127	Closed	15.9	259
1/25/2025	11:45:00	7	0.934	0	54,137	Open	10.7	118
1/25/2025	12:00:00	7	0.832	0	54,144	Open	10.7	118
1/25/2025	12:15:00	7	0.900	0	54,158	Open	10.8	116
1/25/2025	12:30:00	7	0.869	0	54,165	Open	10.9	116
1/25/2025	12:45:00	7	0.839	0	54,178	Open	8.4	116
1/25/2025	13:00:00	7	0.881	0	54,191	Open	8.6	116
1/25/2025	13:15:00	7	0.000	0	54,198	Closed	9.7	118
1/25/2025	13:30:00	7	0.000	0	54,198	Closed	10.9	119
1/25/2025	13:45:00	7	0.000	0	54,198	Closed	12.1	119
1/25/2025	14:00:00	7	0.809	0	54,198	Open	13.6	256
1/25/2025	14:15:00	7	0.828	0	54,205	Open	9.6	119

FRONTIER-KEMPER MICHELS® joint venture		Eagle Mountain- Woodfibre Gas Pipeline Project- Tunnel Scope	
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Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
1/25/2025	14:30:00	7	0.903	0	54,218	Open	10.8	119
1/25/2025	14:45:00	7	0.000	0	54,220	Closed	11.8	119
1/25/2025	15:00:00	7	0.000	0	54,220	Closed	12.9	119
1/25/2025	15:15:00	7	0.000	0	54,221	Closed	11.7	119
1/25/2025	15:30:00	6.9	0.000	0	54,221	Closed	12.3	116
1/25/2025	15:45:00	6.9	0.000	0	54,221	Closed	13.1	271
1/25/2025	16:00:00	6.9	0.877	0	54,223	Open	10.8	119
1/25/2025	16:15:00	7	0.915	0	54,237	Open	11.1	119
1/25/2025	16:30:00	7	0.000	0	54,241	Open	11.3	119
1/25/2025	16:45:00	7	0.000	0	54,241	Open	12.2	119
1/25/2025	17:00:00	6.9	0.000	0	54,241	Open	13.2	119
1/25/2025	17:15:00	10	0.000	0	54,241	Open	16.1	119
1/25/2025	17:30:00	7.8	0.839	22.2	54,241	Closed	18.1	120
1/25/2025	17:45:00	7.4	0.979	0	54,255	Open	11.1	119
1/25/2025	18:00:00	7.4	0.960	0	54,269	Open	11.1	119
1/25/2025	18:15:00	7.5	0.000	0	54,276	Closed	11.4	119
1/25/2025	18:30:00	7.5	0.000	0	54,276	Closed	12.5	119
1/25/2025	18:45:00	7.5	0.000	0	54,276	Closed	13.6	119
1/25/2025	19:00:00	7.5	0.000	0	54,276	Closed	14.5	119
1/25/2025	19:15:00	7.5	0.000	0	54,276	Closed	15.4	252
1/25/2025	19:30:00	7.5	0.869	0	54,284	Open	10.9	119
1/25/2025	19:45:00	7.5	0.888	0	54,297	Open	10.8	118
1/25/2025	20:00:00	7.5	0.000	0	54,309	Closed	10.8	119
1/25/2025	20:15:00	7.5	0.801	0	54,309	Open	11.9	118
1/25/2025	20:30:00	7.5	0.000	0	54,314	Closed	11	116
1/25/2025	20:45:00	7.5	0.000	0	54,314	Closed	11.7	118
1/25/2025	21:00:00	7.5	0.000	0	54,314	Closed	13.4	116

FRONTIER-KEMPER MICHELS® joint venture		Eagle Mountain- Woodfibre Gas Pipeline Project- Tunnel Scope	
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Data Date Range	**January 20, 2025 to January 26, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **February 3, 2025**

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
1/25/2025	21:15:00	7.5	0.000	0	54,314	Closed	13.9	117
1/25/2025	21:30:00	7.5	0.000	0	54,319	Open	10.7	118
1/25/2025	21:45:00	7.5	0.824	0	54,319	Open	12	118
1/25/2025	22:00:00	7.5	0.930	0	54,333	Open	10.4	116
1/25/2025	22:15:00	7.5	0.820	0	54,346	Open	10.3	116
1/25/2025	22:30:00	7.5	0.745	0	54,354	Open	11.3	114
1/25/2025	22:45:00	7.5	0.828	0	54,366	Open	10.2	115
1/25/2025	23:00:00	7.5	0.000	0	54,367	Closed	10.9	117
1/25/2025	23:15:00	7.5	0.000	0	54,368	Closed	10.9	117
1/25/2025	23:30:00	7.5	0.000	0	54,368	Closed	11.7	119
1/25/2025	23:45:00	7.5	0.839	0	54,379	Open	10.2	119
1/26/2025	0:00:00	7.5	0.869	0	54,387	Open	10.5	119
1/26/2025	0:15:00	7.5	0.930	0	54,400	Open	10.3	118
1/26/2025	0:30:00	7.5	0.000	0	54,404	Closed	10.8	119
1/26/2025	0:45:00	7.5	0.000	0	54,404	Closed	11.9	119
1/26/2025	1:00:00	7.5	0.000	0	54,404	Open	11.8	119
1/26/2025	1:15:00	7.5	0.000	0	54,404	Open	12	119
1/26/2025	1:30:00	7.5	0.979	0	54,414	Open	10	118
1/26/2025	1:45:00	7.4	0.352	0	54,425	Open	10.7	118
1/26/2025	2:00:00	7.5	0.703	0	54,433	Open	10	117
1/26/2025	2:15:00	7.5	0.000	0	54,437	Closed	10.3	117
1/26/2025	2:30:00	7.5	0.000	0	54,437	Closed	11.2	117
1/26/2025	2:45:00	7.5	0.000	0	54,437	Closed	12.1	256
1/26/2025	3:00:00	7.5	0.722	0	54,443	Open	9.8	119
1/26/2025	3:15:00	7.5	0.866	0	54,455	Open	9.9	118
1/26/2025	3:30:00	7.5	0.000	0	54,463	Closed	10.2	119
1/26/2025	3:45:00	7.5	0.000	0	54,463	Closed	11.1	119

FRONTIER-KEMPER MICHELS® joint venture		Eagle Mountain- Woodfibre Gas Pipeline Project- Tunnel Scope	
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Data Date Range	**January 20, 2025 to January 26, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **February 3, 2025**

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
1/26/2025	4:00:00	7.5	1.058	0	54,471	Open	9.8	119
1/26/2025	4:15:00	7.5	0.692	0	54,485	Open	9.7	117
1/26/2025	4:30:00	7.5	0.000	0	54,485	Closed	10.5	119
1/26/2025	4:45:00	7.5	0.000	0	54,485	Closed	13.8	119
1/26/2025	5:00:00	7.5	0.000	0	54,485	Closed	15	258
1/26/2025	5:15:00	7.5	0.000	0	54,485	Closed	15.1	255
1/26/2025	5:30:00	7.5	0.858	0	54,491	Open	9.3	113
1/26/2025	5:45:00	7.5	0.828	0	54,504	Open	9.3	113
1/26/2025	6:00:00	7.5	0.816	0	54,516	Open	9.4	116
1/26/2025	6:15:00	7.5	0.000	0	54,520	Closed	10	116
1/26/2025	6:30:00	7.5	0.869	0	54,525	Open	9.6	117
1/26/2025	6:45:00	7.5	0.000	0	54,532	Closed	10	117
1/26/2025	7:00:00	7.5	0.000	0	54,532	Closed	10.6	117
1/26/2025	7:15:00	7.5	0.000	0	54,532	Closed	11.5	118
1/26/2025	7:30:00	7.5	0.000	0	54,532	Closed	12.3	118
1/26/2025	7:45:00	7.5	0.000	0	54,532	Closed	13.1	119
1/26/2025	8:00:00	7.5	0.979	0	54,539	Open	9.7	118
1/26/2025	8:15:00	7.5	0.983	0	54,553	Open	9.8	119
1/26/2025	8:30:00	7.5	1.232	0	54,571	Open	9.8	118
1/26/2025	8:45:00	7.6	0.000	0	54,584	Closed	10	119
1/26/2025	9:00:00	7.5	0.000	0	54,584	Closed	10.6	115
1/26/2025	9:15:00	7.5	0.000	0	54,584	Closed	11.2	116
1/26/2025	9:30:00	7.5	0.000	0	54,584	Closed	14.2	117
1/26/2025	9:45:00	7.5	0.000	0	54,584	Closed	14.8	118
1/26/2025	10:00:00	7.5	1.270	0	54,594	Open	9.6	118
1/26/2025	10:15:00	7.5	1.164	0	54,606	Open	9.6	117
1/26/2025	10:30:00	7.5	1.051	0	54,623	Open	9.8	118

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Data Date Range	**January 20, 2025 to January 26, 2025**	**Prepared by:** **Approved by:** **Date:**	**SD** **BC2** **February 3, 2025**

Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
1/26/2025	10:45:00	7.5	1.172	0	54,640	Open	9.9	117
1/26/2025	11:00:00	7.5	0.000	0	54,641	Closed	11.5	119
1/26/2025	11:15:00	7.5	0.000	0	54,641	Closed	12.5	119
1/26/2025	11:30:00	7.5	0.000	0	54,641	Closed	13.9	248
1/26/2025	11:45:00	7.5	0.631	8.4	54,641	Closed	14.7	119
1/26/2025	12:00:00	7.5	1.191	0	54,658	Open	10.2	119
1/26/2025	12:15:00	7.5	1.130	0	54,675	Open	10.3	119
1/26/2025	12:30:00	7.5	0.000	0	54,690	Closed	10.4	119
1/26/2025	12:45:00	7.5	0.000	0	54,690	Closed	11.3	119
1/26/2025	13:00:00	7.5	0.000	0	54,690	Closed	13.9	253
1/26/2025	13:15:00	7.5	0.000	0	54,690	Closed	14.7	248
1/26/2025	13:30:00	7.5	0.000	0	54,690	Closed	15.5	252
1/26/2025	13:45:00	7.5	0.578	0	54,695	Open	10.9	119
1/26/2025	14:00:00	7.5	1.089	0	54,711	Open	10.6	119
1/26/2025	14:15:00	7.5	1.157	0	54,728	Open	10.6	119
1/26/2025	14:30:00	7.5	1.126	0	54,745	Open	10.6	117
1/26/2025	14:45:00	7.5	0.000	0	54,746	Closed	11.4	119
1/26/2025	15:00:00	7.5	0.000	0	54,746	Closed	12.5	119
1/26/2025	15:15:00	7.5	0.000	0	54,746	Closed	14.1	250
1/26/2025	15:30:00	7.5	0.000	0	54,746	Closed	15	248
1/26/2025	15:45:00	7.5	1.130	0	54,750	Open	11.2	121
1/26/2025	16:00:00	7.5	1.126	0	54,767	Open	10.8	119
1/26/2025	16:15:00	7.5	0.541	0	54,780	Open	11.1	119
1/26/2025	16:30:00	7.5	1.130	0	54,796	Open	10.8	119
1/26/2025	16:45:00	7.5	0.000	0	54,799	Closed	11.5	119
1/26/2025	17:00:00	7.5	0.000	0	54,799	Closed	13.1	255
1/26/2025	17:15:00	7.5	0.000	0	54,799	Closed	14.1	253

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Date	Time	Discharge pH	Flow Rate (m3)	Discharge NTU	Flow Total (m3)	Discharge Valve Status	Discharge Temperature (°C)	Discharge Conductivity (uS/cm)
1/26/2025	17:30:00	7.5	0.605	0	54,799	Open	15.2	245
1/26/2025	17:45:00	7.5	0.000	0	54,805	Open	11.2	119
1/26/2025	18:00:00	7.5	0.578	0	54,806	Open	11.9	119
1/26/2025	18:15:00	7.5	1.179	0	54,823	Open	10.8	119
1/26/2025	18:30:00	7.5	1.123	0	54,840	Open	10.8	119
1/26/2025	18:45:00	7.5	1.153	0	54,858	Open	10.9	119
1/26/2025	19:00:00	7.5	0.000	0	54,873	Closed	10.9	119
1/26/2025	19:15:00	7.5	0.000	0	54,873	Closed	11.7	118
1/26/2025	19:30:00	7.5	0.000	0	54,873	Closed	12.6	259
1/26/2025	19:45:00	7.5	0.000	0	54,873	Closed	13.6	260
1/26/2025	20:00:00	7.5	0.000	0	54,873	Closed	14.1	258
1/26/2025	20:15:00	7.5	0.624	0	54,875	Open	11.6	119
1/26/2025	20:30:00	7.5	1.168	0	54,888	Open	10.5	118
1/26/2025	20:45:00	7.5	1.108	0	54,905	Open	10.4	117
1/26/2025	21:00:00	7.5	1.081	0	54,921	Open	10.4	117
1/26/2025	21:15:00	7.5	0.000	0	54,926	Closed	10.8	117
1/26/2025	21:30:00	7.5	0.000	0	54,926	Closed	11.5	116
1/26/2025	21:45:00	7.5	0.000	0	54,926	Closed	12.1	259
1/26/2025	22:00:00	7.5	0.000	0	54,926	Closed	12.8	259
1/26/2025	22:15:00	7.4	0.000	0	54,926	Open	13.6	259
1/26/2025	22:30:00	7.5	0.627	0	54,934	Open	10.7	119
1/26/2025	22:45:00	7.5	1.130	0	54,950	Open	10.3	119
1/26/2025	23:00:00	7.5	0.000	0	54,953	Closed	11	119
1/26/2025	23:15:00	7.5	0.000	0	54,953	Closed	12	119
1/26/2025	23:30:00	7.5	0.000	0	54,953	Closed	13	258
1/26/2025	23:45:00	7.5	1.153	0	54,960	Open	10.3	119

Appendix C Photos

Photo 1: No visible sheen observed in the WTP water, January 20

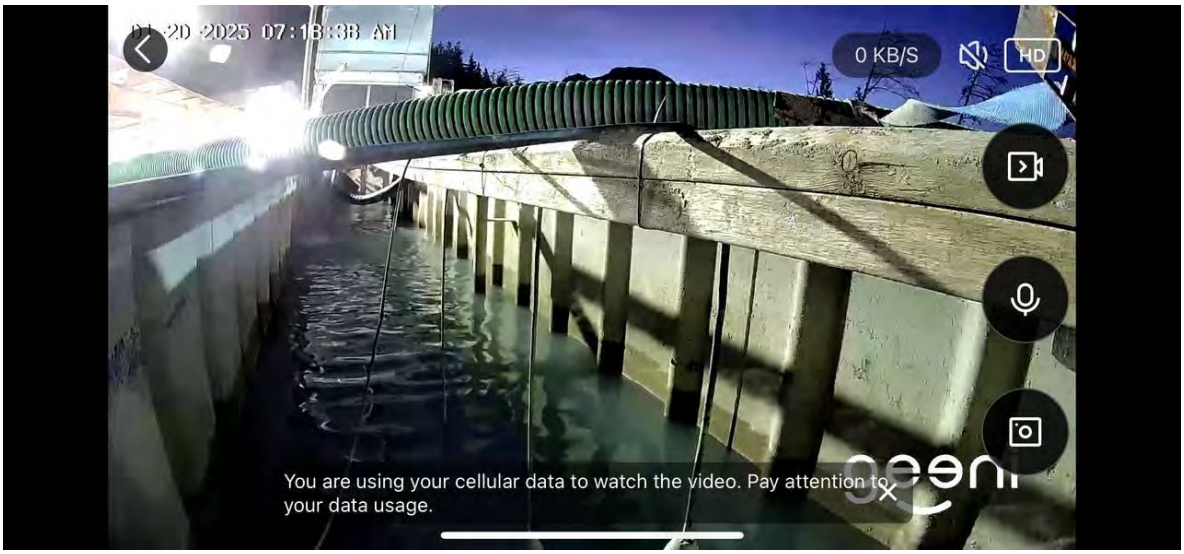


Photo 2: No visible sheen observed in the WTP water, January 22

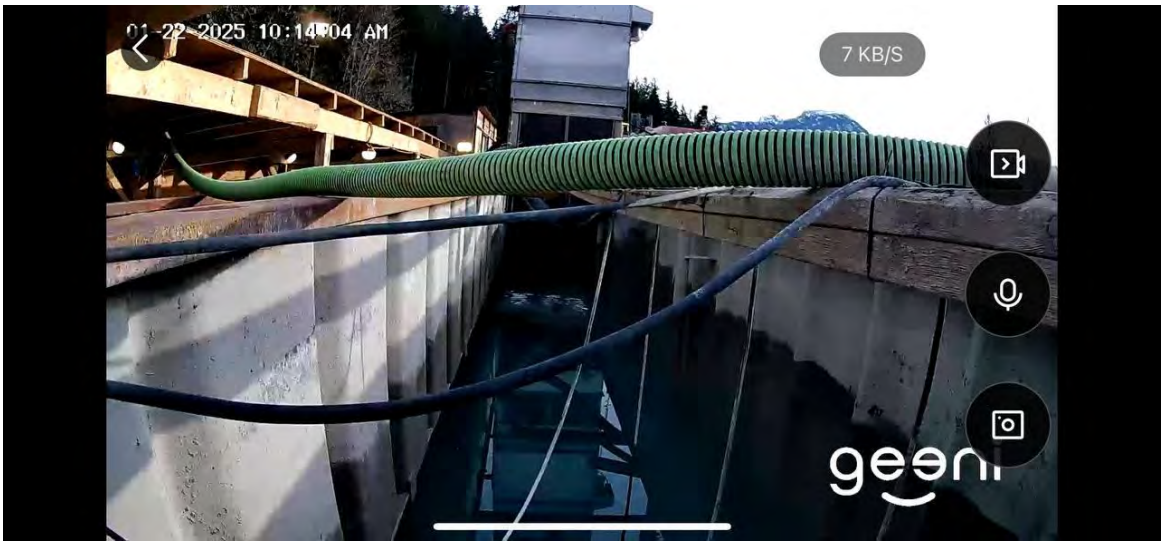


Photo 3: No visible sheen observed in the WTP water, January 23

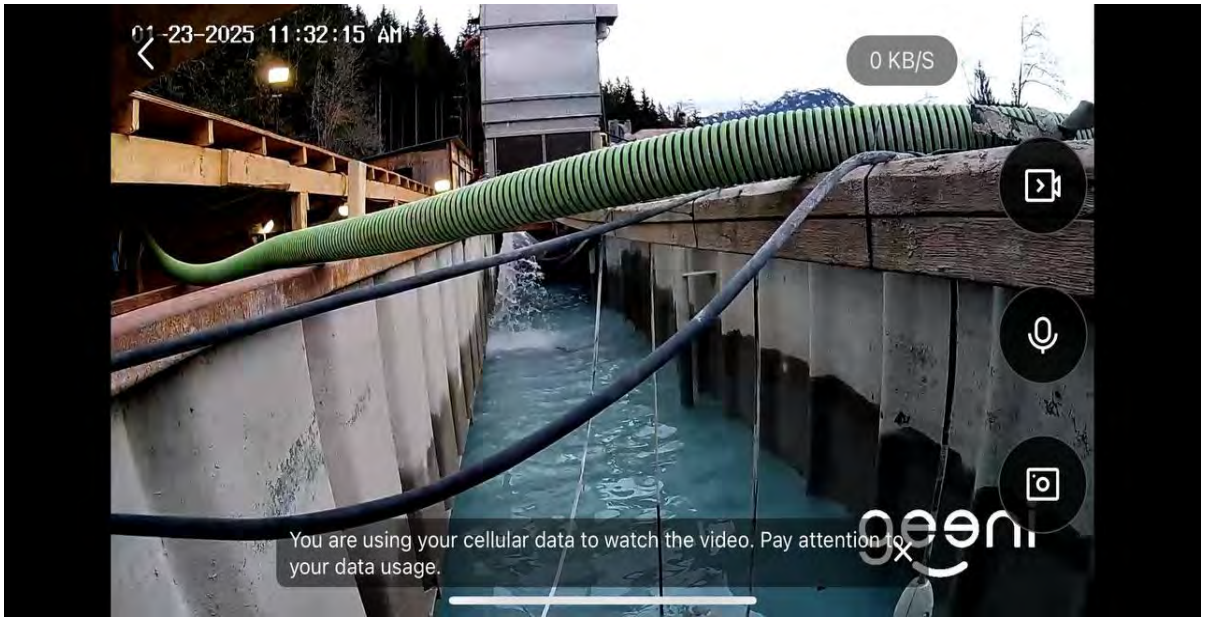


Photo 4: No visible sheen observed in the WTP water, January 24

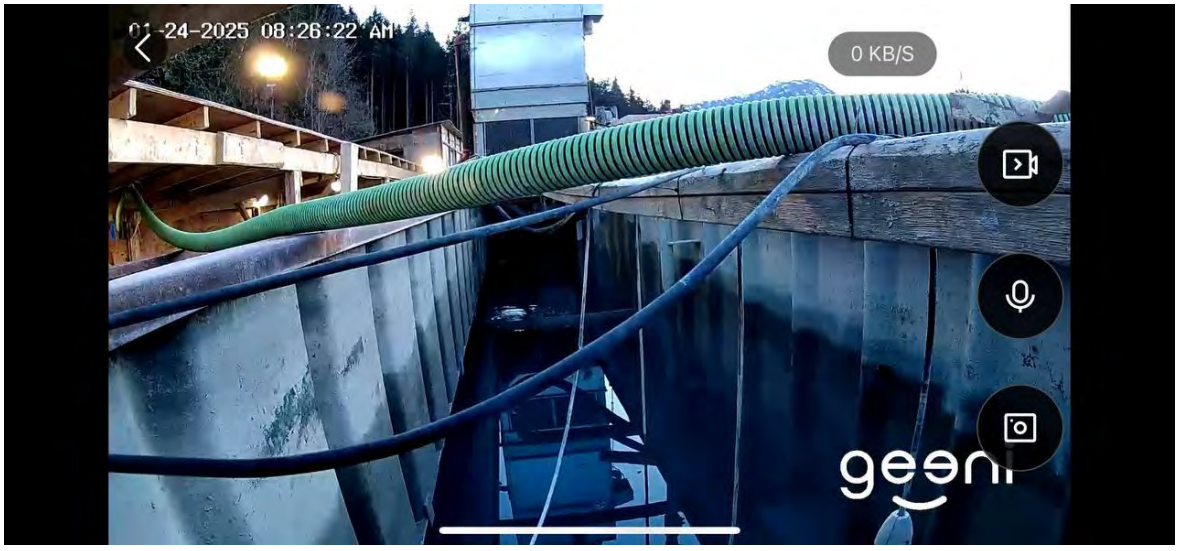
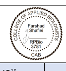


Photo 5: No visible sheen observed in the WTP water, January 25


Appendix D: Woodfibre Site Receiving Environment Documentation

Woodfibre Site Receiving Environment Sample Analysis

TRITON	Sample ID	Reviewed and signed off by:			Farshad Shafiei Ph.D., R.P.Bio.	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					VA25A1495-001	VA25A1495-002					
	Date Sampled					21-Jan-2025	21-Jan-2025					
	Time Sampled					12:02	13:08					
Analyte	Units	FAL-ST [1,2]	FAL-LT [1,2]	MAL-ST [1]	MAL-LT [1,2]	Water	Water					
						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	7.18	7.8		If natural pH < 6.5, no statisticaly 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 [4]	-	Short-term daily temperature guideline is 19°C for streams with unknown fish distribution Max +/- from BKG 1°C [4]	-	5.5	5.3		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 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 East Creek. Calculation: US value +/- 1 = guideline range	
Conductivity (field)	µS/cm	-	-	-	-	35	67					
Turbidity (field)	NTU	Varies with background, see note Guideline = 9.4	Varies with background, see note Guideline = 3.77 5-week discrete sampling average = 1.78 (DS)	Varies with background, see note Guideline = 9.4	Varies with background, see note Guideline = 3.77 5-week discrete sampling average = 1.78 (DS)	1.44	0.45		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	12.24	12.03		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	-	-	-	-	5.59	24.3					
Total Dissolved Solids	mg/L	-	-	-	-	21	28					
Total Suspended Solids	mg/L	Varies with background, see note Guideline = 28	Varies with background, see note Guideline = 8.00 5-week discrete sampling average = 3.0 (DS)	Varies with background, see note Guideline = 28	Varies with background, see note Guideline = 8.00 5-week discrete sampling average = 3.0 (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 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	-	-	-	-	1.54	1.06			Long-term (30-day) median within 20% of background median [3]		
Total Alkalinity ($CaCO_3$)	mg/L	-	Categorical	-	-	5	12.7			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 = 18.3	Varies with pH and temperature. See note. Guideline = 1.92	Varies with pH and temperature. See note. Guideline = 121	Varies with pH, temperature and salinity. See note. Guideline = 12	< 0.0050	< 0.0050		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	> 110% of background	< 90% of background	0.71	1.25				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 = 0.175	-	1.5	-	< 0.020	0.045		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	0.0242	0.0202					
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	-	-	-	-	0.07	0.07					
Total Phosphorous	mg/L	-	0.005 to 0.015	-	-	0.0218	0.0056			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	-	-	2.45	2.9			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 = 0.093 5-week field average = 0.087 (US), 0.078 (DS)	-	-	0.0723	0.0664			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) + (-0.284 * (LN(hardness) * pH))-9.898)/3/1000) 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	0.00011					
Arsenic (As)-Total	mg/L	-	0.005	-	0.0125	< 0.00010	0.00034					Interim guideline status
Barium (Ba)-Total	mg/L	-	1	-	-	0.0028	0.00446			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	0.0000061	0.000007					Working guideline status
Calcium (Ca)-Total	mg/L	-	-	-	-	1.89	8.94					
Cesium (Cs)-Total	mg/L	-	-	-	-	< 0.000010	< 0.000010					
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	-	-	< 0.00010	< 0.00010					
Copper (Cu)-Total	mg/L	-	-	0.003	0.003 5-week field averages = 0.00066 (US), 0.00054 (DS)	0.00057	< 0.00050					
Iron (Fe)-Total	mg/L	1	-	-	-	0.032	0.023					
Lead (Pb)-Total	mg/L	-	-	0.14	0.002 5-week field averages = 0.0000502 (US), 0.000050 (DS)	< 0.00005	< 0.00005		Guideline varies with hardness, refer to BC Water Quality Guidelines for more information. Guideline is 0.003 where hardness ≤8mg/L. Guideline uses equation EXP[1.273*on(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*on(hardness)-4.704] applies to samples with hardness 8-360 mg/L.		
Lithium (Li)-Total	mg/L	-	-	-	-	< 0.0010	0.0015					
Magnesium (Mg)-Total	mg/L	-	-	-	-	0.211	0.484					
Manganese (Mn)-Total	mg/L	Varies with hardness Guideline = 0.82	Varies with hardness Guideline = 0.77	-	-	0.00157	0.00583		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/[MeHg/totalHg]. When MeHg ≤ 0.5% of total Hg, guideline is equal to 0.02 mg/L		
Molybdenum (Mo)-Total	mg/L	46	7.6	-	-	0.000281	0.0067					
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)) + 1.06))/1000) Hardness ≥ 180: 0.15		Working guideline status
Phosphorus (P)-Total	mg/L	-	0.005 to 0.015	-	-	< 0.050	< 0.050			Guideline only applies to lakes with salmonid species being the dominant fish species. Guideline is for reference only and does not apply to site.		
Potassium (K)-Total	mg/L	-	-	-	-	0.255	0.73					
Rubidium (Rb)-Total	mg/L	-	-	-	-	0.00028	0.00122					
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 guidelens for sediment, invertebrate and fish tissue. Refer to BC Water Quality Guidelines for more information on guideliens and sampling guidance.		Guideline for marine aquatic life (water column). Alert concentration is 0.001 mg/L, with separate guideliens for sediment, invertebrate and fish tissue. Refer to BC Water Quality Guidelines for more information on guideliens and sampling guidance.
Silicon (Si)-Total	mg/L	-	-	-	-	3.81	4.57					
Silver (Ag)-Total	mg/L	Varies with hardness, see note Guideline = 0.0001	Varies with hardness, see note Guideline = 0.00005	0.003	0.0015	0.000021	< 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 EGP site.
Sodium (Na)-Total	mg/L	-	-	-	-	1.24	2.19					
Strontium (Sr)-Total	mg/L	-	-	-	-	0.0101	0.0204					
Sulfur (S)-Total	mg/L	-	-	-	-	0.59	1.04					
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 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	-	-	-	-	0.00065	0.00046					
Tungsten (W)-Total	mg/L	-	-	-	-	< 0.00010	0.00014					
Uranium (U)-Total	mg/L	0.0165	0.0075	-	-	0.000094	0.00092			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 = 0.0032 (US), 0.0038 (DS)	0.0039	< 0.0030					
Zirconium (Zr)-Total	mg/L	-	-	-	-	< 0.00020	< 0.00020					
Dissolved Metals												
Aluminum (Al)-Dissolved	mg/L	-	-	-	-	0.0596	0.0539					
Antimony (Sb)-Dissolved	mg/L	-	-	-	-	< 0.00010	< 0.00010					
Arsenic (As)-Dissolved	mg/L	-	-	-	-	< 0.00010	0.0003					
Barium (Ba)-Dissolved	mg/L	-	-	-	-	0.00267	0.00411					
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 = 0.000038	Varies with hardness, see note Guideline = 0.000025	-	-	0.0000053	0.000007		Guideline is hardness dependent. Guideline is applicable to water hardness between 7.0 and 455 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 285 mg/L. Guideline is calculated with the following formula: Guideline = (EXP(0.736 * (LN(hardness)) - 4.943)/1000) Lowest value for guiedeline 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	-	-	1.78	7.95			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 = 0.0014	Guideline varies with other parameters, see note Guideline = 0.0004 5-week field average = 0.0006 (US), 0.00045 (DS)	-	-	0.00048	0.00028		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	-	-	-	0.017	0.011					
Lead (Pb)-Dissolved	mg/L	-	Guideline varies with DOC and hardness Guideline: 0.00155 5-week field average = <0.000050 (US), 0.0000556 (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))/2/1000 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	0.0014					
Magnesium (Mg)-Dissolved	mg/L	-	-	-	-	0.204	0.471					
Manganese (Mn)-Dissolved	mg/L	-	-	-	-	0.00112	0.00552					
Mercury (Hg)-Dissolved	mg/L	-	-	-	-	< 0.0000050	< 0.0000050					
Molybdenum (Mo)-Dissolved	mg/L	-	-	-	-	0.000293	0.00629					
Nickel (Ni)-Dissolved	mg/L	Guideline varies with pH, temperature, DOC, and hardness Guideline: 0.016	Guideline varies with pH, temperature, DOC, and hardness Guideline: 0.00125 5-week field average = < 0.0005 (US), < 0.0005 (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	-	-	-	-	< 0.050	< 0.050					
Potassium (K)-Dissolved	mg/L	-	-	-	-	0.26	0.705					
Rubidium (Rb)-Dissolved	mg/L	-	-	-	-	0.00028	0.0011					
Selenium (Se)-Dissolved	mg/L	-	-	-	-	< 0.00005	< 0.00005					
Silicon (Si)-Dissolved	mg/L	-	-	-	-	3.63	4.27					
Silver (Ag)-Dissolved	mg/L	-	-	-	-	< 0.000010	< 0.000010					
Sodium (Na)-Dissolved	mg/L	-	-	-	-	1.24	2.21					
Strontium (Sr)-Dissolved	mg/L	-	-	-	-	0.0102	0.0208					
Sulfur (S)-Dissolved	mg/L	-	-	-	-	0.67	0.9					
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	0.00014					
Uranium (U)-Dissolved	mg/L	-	-	-	-	0.00008	0.000864					
Vanadium (V)-Dissolved	mg/L	-	-	-	-	< 0.00050	< 0.00050					
Zinc (Zn)-Dissolved	mg/L	Varies with DOC and hardness Guideline = 0.008	Varies with pH, DOC, hardness Guideline = 0.0031 5-week field average = 0.0023 (US), 0.0034 (DS)	-	-	0.0023	0.0023		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)/2/1000) 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)/2/1000) Guideline only applies to water with pH between 6.5 and 8.13, DOC between 0.3 and 22.9 mg/L, anmd 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 Qualtiy Guidelines for the Protection of Aquatic Life, Wildlife & Agriculture. Accessed from: wqg_summary_aquaticlife_wildlife_agri.pdf (gov.bc.ca)

[2]BC MOECCS. 2021. BC Working Water Qualtiy Guidelines for the Protection of Aquatic Life, Widlife & 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.

[4]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 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	
			EAS US1 (Upstream)	EAS DS 1 (Downstream)
pH (field)	pH units	Field pH taken using handheld meters during sampling used in calculations	7.18	7.8
Temperature (field)	°C	Field temperature taken using handheld meters during sampling used in calculations	5.5	5.3
Turbidity (field)	NTU	Field turbidity taken using handheld meters during sampling used in calculations	1.44	0.45
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	5.59	24.3
Dissolved Organic Carbon (DOC)	mg/L	Laboratory tested dissolved organic carbon tested at the lab used in guideline calculations	1.54	1.06
Total Alkalinity ($CaCO_3$)	mg/L	Laboratory tested total alkalinity used in calculations	5	12.7
Chloride	mg/L	Laboratory tested chloride taken at each respective sample site on the day of sampling used in guideline calculations	0.71	1.25

Woodfibre Site Receiving Environment Lab Documentation

CERTIFICATE OF ANALYSIS

Work Order	: **VA25A1495**		
Client	: **Triton Environmental Consultants Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact		Account Manager	
Address		Address	
Telephone		Telephone	
Project	: 11964	Date Samples Received	: 21-Jan-2025 18:45
PO	: 11964-Task 20-Phase3C-4C	Date Analysis Commenced	: 22-Jan-2025
C-O-C number	: ----	Issue Date	: 29-Jan-2025 15:13
Sampler	: ----		
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
		Inorganics, 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	WLNG US1	WLNG DS 1	----	----	----
					Client sampling date / time	21-Jan-2025 12:02	21-Jan-2025 13:08	----	----	----
						VA25A1495-001	VA25A1495-002	----	----	----
						Result	Result	----	----	----
Field Tests										
Conductivity, field	----	EF001/VA	0.10	µS/cm		35.000	67.000	----	----	----
pH, field	----	EF001/VA	0.10	pH units		7.18	7.80	----	----	----
Temperature, field	----	EF001/VA	0.10	°C		5.50	5.30	----	----	----
Physical Tests										
Hardness (as CaCO3), dissolved	----	EC100/VA	0.60	mg/L		5.28	21.8	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/VA	0.60	mg/L		5.59	24.3	----	----	----
Solids, total dissolved [TDS]	----	E162/VA	10	mg/L		21	28	----	----	----
Solids, total suspended [TSS]	----	E160/VA	3.0	mg/L		<3.0	<3.0	----	----	----
Alkalinity, total (as CaCO3)	----	E290/VA	2.0	mg/L		5.0	12.7	----	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/VA	0.0050	mg/L		<0.0050	<0.0050	----	----	----
Bromide	24959-67-9	E235.Br-L/VA	0.050	mg/L		<0.050	<0.050	----	----	----
Chloride	16887-00-6	E235.Cl/VA	0.50	mg/L		0.71	1.25	----	----	----
Fluoride	16984-48-8	E235.F/VA	0.020	mg/L		<0.020	0.045	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/VA	0.0050	mg/L		0.0242	0.0202	----	----	----
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		0.070	0.070	----	----	----
Phosphorus, total	7723-14-0	E372-U/VA	0.0020	mg/L		0.0218	0.0056	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/VA	0.30	mg/L		2.45	2.90	----	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/VA	0.50	mg/L		1.54	1.06	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	WLNG US1	WLNG DS 1	----	----	----
					Client sampling date / time	21-Jan-2025 12:02	21-Jan-2025 13:08	----	----	----
						VA25A1495-001	VA25A1495-002	----	----	----
						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		0.0723	0.0664	----	----	----
Antimony, total	7440-36-0	E420/VA	0.00010	mg/L		<0.00010	0.00011	----	----	----
Arsenic, total	7440-38-2	E420/VA	0.00010	mg/L		<0.00010	0.00034	----	----	----
Barium, total	7440-39-3	E420/VA	0.00010	mg/L		0.00280	0.00446	----	----	----
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		0.0000061	0.0000070	----	----	----
Calcium, total	7440-70-2	E420/VA	0.050	mg/L		1.89	8.94	----	----	----
Cesium, total	7440-46-2	E420/VA	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Chromium, total	7440-47-3	E420/VA	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Cobalt, total	7440-48-4	E420/VA	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Copper, total	7440-50-8	E420/VA	0.00050	mg/L		0.00057	<0.00050	----	----	----
Iron, total	7439-89-6	E420/VA	0.010	mg/L		0.032	0.023	----	----	----
Lead, total	7439-92-1	E420/VA	0.000050	mg/L		<0.000050	<0.000050	----	----	----
Lithium, total	7439-93-2	E420/VA	0.0010	mg/L		<0.0010	0.0015	----	----	----
Magnesium, total	7439-95-4	E420/VA	0.0050	mg/L		0.211	0.484	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	WLNG US1	WLNG DS 1	----	----	----
					Client sampling date / time	21-Jan-2025 12:02	21-Jan-2025 13:08	----	----	----
						VA25A1495-001	VA25A1495-002	----	----	----
						Result	Result	----	----	----
Total Metals										
Manganese, total	7439-96-5	E420/VA	0.00010	mg/L		0.00157	0.00583	----	----	----
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		0.000281	0.00670	----	----	----
Nickel, total	7440-02-0	E420/VA	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Phosphorus, total	7723-14-0	E420/VA	0.050	mg/L		<0.050	<0.050	----	----	----
Potassium, total	7440-09-7	E420/VA	0.050	mg/L		0.255	0.730	----	----	----
Rubidium, total	7440-17-7	E420/VA	0.00020	mg/L		0.00028	0.00122	----	----	----
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		3.81	4.57	----	----	----
Silver, total	7440-22-4	E420/VA	0.000010	mg/L		0.000021	<0.000010	----	----	----
Sodium, total	7440-23-5	E420/VA	0.050	mg/L		1.24	2.19	----	----	----
Strontium, total	7440-24-6	E420/VA	0.00020	mg/L		0.0101	0.0204	----	----	----
Sulfur, total	7704-34-9	E420/VA	0.50	mg/L		0.59	1.04	----	----	----
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		0.00065	0.00046	----	----	----
Tungsten, total	7440-33-7	E420/VA	0.00010	mg/L		<0.00010	0.00014	----	----	----
Uranium, total	7440-61-1	E420/VA	0.000010	mg/L		0.000094	0.000920	----	----	----
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	WLNG US1	WLNG DS 1	----	----	----
					Client sampling date / time	21-Jan-2025 12:02	21-Jan-2025 13:08	----	----	----
						VA25A1495-001	VA25A1495-002	----	----	----
						Result	Result	----	----	----
Total Metals										
Zinc, total	7440-66-6	E420/VA	0.0030	mg/L		0.0039	<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		0.0596	0.0539	----	----	----
Antimony, dissolved	7440-36-0	E421/VA	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Arsenic, dissolved	7440-38-2	E421/VA	0.00010	mg/L		<0.00010	0.00030	----	----	----
Barium, dissolved	7440-39-3	E421/VA	0.00010	mg/L		0.00267	0.00411	----	----	----
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		0.0000053	0.0000070	----	----	----
Calcium, dissolved	7440-70-2	E421/VA	0.050	mg/L		1.78	7.95	----	----	----
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		0.00048	0.00028	----	----	----
Iron, dissolved	7439-89-6	E421/VA	0.010	mg/L		0.017	0.011	----	----	----
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	0.0014	----	----	----
Magnesium, dissolved	7439-95-4	E421/VA	0.0050	mg/L		0.204	0.471	----	----	----
Manganese, dissolved	7439-96-5	E421/VA	0.00010	mg/L		0.00112	0.00552	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	WLNG US1	WLNG DS 1	----	----	----
					Client sampling date / time	21-Jan-2025 12:02	21-Jan-2025 13:08	----	----	----
						VA25A1495-001	VA25A1495-002	----	----	----
						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		0.000293	0.00629	----	----	----
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		0.260	0.705	----	----	----
Rubidium, dissolved	7440-17-7	E421/VA	0.00020	mg/L		0.00028	0.00110	----	----	----
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		3.63	4.27	----	----	----
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		1.24	2.21	----	----	----
Strontium, dissolved	7440-24-6	E421/VA	0.00020	mg/L		0.0102	0.0208	----	----	----
Sulfur, dissolved	7704-34-9	E421/VA	0.50	mg/L		0.67	0.90	----	----	----
Tellurium, dissolved	13494-80-9	E421/VA	0.00020	mg/L		<0.00020	<0.00020	----	----	----
Thallium, dissolved	7440-28-0	E421/VA	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Thorium, dissolved	7440-29-1	E421/VA	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Tin, dissolved	7440-31-5	E421/VA	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Titanium, dissolved	7440-32-6	E421/VA	0.00030	mg/L		<0.00030	<0.00030	----	----	----
Tungsten, dissolved	7440-33-7	E421/VA	0.00010	mg/L		<0.00010	0.00014	----	----	----
Uranium, dissolved	7440-61-1	E421/VA	0.000010	mg/L		0.000080	0.000864	----	----	----
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		0.0023	0.0023	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	WLNG US1	WLNG DS 1	----	----	----
					Client sampling date / time	21-Jan-2025 12:02	21-Jan-2025 13:08	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA25A1495-001	VA25A1495-002	----	----	----
						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	: **VA25A1495**	Page	: 1 of 15
Client	: **Triton Environmental Consultants Ltd.**	Laboratory	: ALS Environmental - Vancouver
Contact		Account Manager	
Address		Address	
Telephone	: ----	Telephone	
Project	: 11964	Date Samples Received	: 21-Jan-2025 18:45
PO	: 11964-Task 20-Phase3C-4C	Issue Date	: 29-Jan-2025 15:13
C-O-C number	: ----		
Sampler	: ----		
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 Duplicate outliers occur.
- No Matrix Spike outliers occur.
- Method Blank value outliers occur - please see following pages for full details.
- 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
Method Blank (MB) Values								
Total Metals	QC-1849991-001	----	Magnesium, total	7439-95-4	E420	0.0067 mg/L B	0.005 mg/L	Blank result exceeds permitted value
Total Metals	QC-1849991-001	----	Manganese, total	7439-96-5	E420	0.00024 mg/L B	0.0001 mg/L	Blank result exceeds permitted value

Result Qualifiers

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

Laboratory Control Sample (LCS) Recoveries								
Dissolved Metals	QC-1849444-002	----	Tungsten, dissolved	7440-33-7	E421	127 % 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) WLNG DS 1	E298	21-Jan-2025	24-Jan-2025	28 days	3 days	✓	24-Jan-2025	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) WLNG US1	E298	21-Jan-2025	24-Jan-2025	28 days	3 days	✓	24-Jan-2025	28 days	3 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE WLNG DS 1	E235.Br-L	21-Jan-2025	24-Jan-2025	28 days	3 days	✓	24-Jan-2025	28 days	3 days	✓
Anions and Nutrients : Bromide in Water by IC (Low Level)										
HDPE WLNG US1	E235.Br-L	21-Jan-2025	24-Jan-2025	28 days	3 days	✓	24-Jan-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE WLNG DS 1	E235.Cl	21-Jan-2025	24-Jan-2025	28 days	3 days	✓	24-Jan-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE WLNG US1	E235.Cl	21-Jan-2025	24-Jan-2025	28 days	3 days	✓	24-Jan-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE WLNG DS 1	E235.F	21-Jan-2025	24-Jan-2025	28 days	3 days	✓	24-Jan-2025	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Fluoride in Water by IC										
HDPE										
WLNG US1	E235.F	21-Jan-2025	24-Jan-2025	28 days	3 days	✓	24-Jan-2025	28 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
WLNG DS 1	E235.NO3-L	21-Jan-2025	24-Jan-2025	3 days	3 days	✓	24-Jan-2025	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
WLNG US1	E235.NO3-L	21-Jan-2025	24-Jan-2025	3 days	3 days	✓	24-Jan-2025	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
WLNG DS 1	E235.NO2-L	21-Jan-2025	24-Jan-2025	3 days	3 days	✓	24-Jan-2025	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
WLNG US1	E235.NO2-L	21-Jan-2025	24-Jan-2025	3 days	3 days	✓	24-Jan-2025	3 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
WLNG DS 1	E235.SO4	21-Jan-2025	24-Jan-2025	28 days	3 days	✓	24-Jan-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
WLNG US1	E235.SO4	21-Jan-2025	24-Jan-2025	28 days	3 days	✓	24-Jan-2025	28 days	3 days	✓
Anions and Nutrients : Total Nitrogen by Colourimetry										
Amber glass total (sulfuric acid)										
WLNG DS 1	E366	21-Jan-2025	24-Jan-2025	28 days	3 days	✓	27-Jan-2025	28 days	6 days	✓
Anions and Nutrients : Total Nitrogen by Colourimetry										
Amber glass total (sulfuric acid)										
WLNG US1	E366	21-Jan-2025	24-Jan-2025	28 days	3 days	✓	27-Jan-2025	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times 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)										
WLNG DS 1	E372-U	21-Jan-2025	24-Jan-2025	28 days	3 days	✓	26-Jan-2025	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
WLNG US1	E372-U	21-Jan-2025	24-Jan-2025	28 days	3 days	✓	26-Jan-2025	28 days	5 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
WLNG DS 1	E509	21-Jan-2025	26-Jan-2025	28 days	5 days	✓	26-Jan-2025	28 days	5 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
WLNG US1	E509	21-Jan-2025	26-Jan-2025	28 days	5 days	✓	26-Jan-2025	28 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
WLNG DS 1	E421	21-Jan-2025	23-Jan-2025	180 days	2 days	✓	24-Jan-2025	180 days	3 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
WLNG US1	E421	21-Jan-2025	23-Jan-2025	180 days	2 days	✓	24-Jan-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)										
WLNG DS 1	EF001	21-Jan-2025	----	----	----		24-Jan-2025	----	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)										
WLNG US1	EF001	21-Jan-2025	----	----	----		24-Jan-2025	----	3 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
WLNG DS 1	E358-L	21-Jan-2025	24-Jan-2025	28 days	3 days	✓	24-Jan-2025	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times 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 (sulfuric acid) WLNG US1	E358-L	21-Jan-2025	24-Jan-2025	28 days	3 days	✓	24-Jan-2025	28 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE WLNG DS 1	E290	21-Jan-2025	24-Jan-2025	14 days	3 days	✓	24-Jan-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE WLNG US1	E290	21-Jan-2025	24-Jan-2025	14 days	3 days	✓	24-Jan-2025	14 days	3 days	✓
Physical Tests : TDS by Gravimetry										
HDPE WLNG DS 1	E162	21-Jan-2025	----	----	----		27-Jan-2025	7 days	6 days	✓
Physical Tests : TDS by Gravimetry										
HDPE WLNG US1	E162	21-Jan-2025	----	----	----		27-Jan-2025	7 days	6 days	✓
Physical Tests : TSS by Gravimetry										
HDPE WLNG DS 1	E160	21-Jan-2025	----	----	----		27-Jan-2025	7 days	6 days	✓
Physical Tests : TSS by Gravimetry										
HDPE WLNG US1	E160	21-Jan-2025	----	----	----		27-Jan-2025	7 days	6 days	✓
Speciated Metals : Total Hexavalent Chromium (Cr VI) by IC										
Opaque HDPE - total (sodium hydroxide) WLNG DS 1	E532	21-Jan-2025	----	----	----		22-Jan-2025	28 days	1 days	✓
Speciated Metals : Total Hexavalent Chromium (Cr VI) by IC										
Opaque HDPE - total (sodium hydroxide) WLNG US1	E532	21-Jan-2025	----	----	----		22-Jan-2025	28 days	1 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
WLNG DS 1	E508	21-Jan-2025	25-Jan-2025	28 days	4 days	✓	25-Jan-2025	28 days	4 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
WLNG US1	E508	21-Jan-2025	25-Jan-2025	28 days	4 days	✓	25-Jan-2025	28 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
WLNG DS 1	E420	21-Jan-2025	23-Jan-2025	180 days	2 days	✓	24-Jan-2025	180 days	3 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
WLNG US1	E420	21-Jan-2025	23-Jan-2025	180 days	2 days	✓	24-Jan-2025	180 days	3 days	✓
Total Sulfides : Total Sulfide by Colourimetry (Automated Flow)										
HDPE total (zinc acetate+sodium hydroxide)										
WLNG DS 1	E395	21-Jan-2025	----	----	----		27-Jan-2025	7 days	6 days	✓
Total Sulfides : Total Sulfide by Colourimetry (Automated Flow)										
HDPE total (zinc acetate+sodium hydroxide)										
WLNG US1	E395	21-Jan-2025	----	----	----		27-Jan-2025	7 days	6 days	✓

Legend & Qualifier Definitions

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

Quality Control Parameter Frequency Compliance

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

Matrix: **Water**

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

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Alkalinity Species by Titration	E290	1850339	1	14	7.1	5.0	✓
Ammonia by Fluorescence	E298	1851148	1	19	5.2	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	1850346	1	9	11.1	5.0	✓
Chloride in Water by IC	E235.Cl	1850341	1	20	5.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1852523	1	14	7.1	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1849444	1	11	9.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1851146	1	14	7.1	5.0	✓
Fluoride in Water by IC	E235.F	1850344	1	19	5.2	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1850342	1	18	5.5	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1850343	1	15	6.6	5.0	✓
Sulfate in Water by IC	E235.SO4	1850340	1	20	5.0	5.0	✓
TDS by Gravimetry	E162	1853454	1	12	8.3	5.0	✓
Total Hexavalent Chromium (Cr VI) by IC	E532	1848694	1	11	9.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1852032	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1849991	1	20	5.0	5.0	✓
Total Nitrogen by Colourimetry	E366	1851149	1	8	12.5	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1851150	1	2	50.0	5.0	✓
Total Sulfide by Colourimetry (Automated Flow)	E395	1853386	1	8	12.5	5.0	✓
TSS by Gravimetry	E160	1853450	1	12	8.3	5.0	✓
Laboratory Control Samples (LCS)							
Alkalinity Species by Titration	E290	1850339	1	14	7.1	5.0	✓
Ammonia by Fluorescence	E298	1851148	1	19	5.2	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	1850346	1	9	11.1	5.0	✓
Chloride in Water by IC	E235.Cl	1850341	1	20	5.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1852523	1	14	7.1	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1849444	1	11	9.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1851146	1	14	7.1	5.0	✓
Fluoride in Water by IC	E235.F	1850344	1	19	5.2	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1850342	1	18	5.5	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1850343	1	15	6.6	5.0	✓
Sulfate in Water by IC	E235.SO4	1850340	1	20	5.0	5.0	✓
TDS by Gravimetry	E162	1853454	1	12	8.3	5.0	✓
Total Hexavalent Chromium (Cr VI) by IC	E532	1848694	1	11	9.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1852032	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1849991	1	20	5.0	5.0	✓
Total Nitrogen by Colourimetry	E366	1851149	1	8	12.5	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	1851150	1	2	50.0	5.0	✓
Total Sulfide by Colourimetry (Automated Flow)	E395	1853386	1	8	12.5	5.0	✓
TSS by Gravimetry	E160	1853450	1	12	8.3	5.0	✓
Method Blanks (MB)							
Alkalinity Species by Titration	E290	1850339	1	14	7.1	5.0	✓
Ammonia by Fluorescence	E298	1851148	1	19	5.2	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	1850346	1	9	11.1	5.0	✓
Chloride in Water by IC	E235.Cl	1850341	1	20	5.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1852523	1	14	7.1	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1849444	1	11	9.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1851146	1	14	7.1	5.0	✓
Fluoride in Water by IC	E235.F	1850344	1	19	5.2	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1850342	1	18	5.5	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1850343	1	15	6.6	5.0	✓
Sulfate in Water by IC	E235.SO4	1850340	1	20	5.0	5.0	✓
TDS by Gravimetry	E162	1853454	1	12	8.3	5.0	✓
Total Hexavalent Chromium (Cr VI) by IC	E532	1848694	1	11	9.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1852032	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1849991	1	20	5.0	5.0	✓
Total Nitrogen by Colourimetry	E366	1851149	1	8	12.5	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1851150	1	2	50.0	5.0	✓
Total Sulfide by Colourimetry (Automated Flow)	E395	1853386	1	8	12.5	5.0	✓
TSS by Gravimetry	E160	1853450	1	12	8.3	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1851148	1	19	5.2	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	1850346	1	9	11.1	5.0	✓
Chloride in Water by IC	E235.Cl	1850341	1	20	5.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1852523	1	14	7.1	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1849444	1	11	9.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1851146	1	14	7.1	5.0	✓
Fluoride in Water by IC	E235.F	1850344	1	19	5.2	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1850342	1	18	5.5	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1850343	1	15	6.6	5.0	✓
Sulfate in Water by IC	E235.SO4	1850340	1	20	5.0	5.0	✓
Total Hexavalent Chromium (Cr VI) by IC	E532	1848694	1	11	9.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1852032	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1849991	1	20	5.0	5.0	✓
Total Nitrogen by Colourimetry	E366	1851149	1	8	12.5	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1851150	1	2	50.0	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 Sulfide by Colourimetry (Automated Flow)	E395	1853386	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.
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	: **VA25A1495**	Page	: 1 of 17
Client	: Triton Environmental Consultants Ltd.	Laboratory	: ALS Environmental - Vancouver
Contact		Account Manager	
Address		Address	
Telephone		Telephone	
Project	: 11964	Date Samples Received	: 21-Jan-2025 18:45
PO	: 11964-Task 20-Phase3C-4C	Date Analysis Commenced	: 22-Jan-2025
C-O-C number	: ----	Issue Date	: 29-Jan-2025 15:13
Sampler	: ----		
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 Metals, Burnaby, British Columbia
		Vancouver Inorganics, 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: 1850339)											
VA25A1418-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	366	366	0.164%	20%	----
Physical Tests (QC Lot: 1853450)											
VA25A1436-003	Anonymous	Solids, total suspended [TSS]	----	E160	7.5	mg/L	2330	2450	5.38%	20%	----
Physical Tests (QC Lot: 1853454)											
VA25A1436-003	Anonymous	Solids, total dissolved [TDS]	----	E162	20	mg/L	462	459	0.543%	20%	----
Anions and Nutrients (QC Lot: 1850340)											
VA25A1435-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	3.00	mg/L	1240	1240	0.0834%	20%	----
Anions and Nutrients (QC Lot: 1850341)											
VA25A1435-001	Anonymous	Chloride	16887-00-6	E235.Cl	5.00	mg/L	6.63	6.65	0.02	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1850342)											
VA25A1435-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0500	mg/L	0.190	0.189	0.0013	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1850343)											
VA25A1435-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0100	mg/L	<0.0100	<0.0100	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1850344)											
VA25A1435-001	Anonymous	Fluoride	16984-48-8	E235.F	0.200	mg/L	<0.200	<0.200	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1850346)											
VA25A1435-001	Anonymous	Bromide	24959-67-9	E235.Br-L	0.500	mg/L	<0.500	<0.500	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1851148)											
FJ2500224-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.215	0.223	3.71%	20%	----
Anions and Nutrients (QC Lot: 1851149)											
VA25A1495-001	WLNG US1	Nitrogen, total	7727-37-9	E366	0.030	mg/L	0.070	0.070	0.0003	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1851150)											
VA25A1495-001	WLNG US1	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0218	0.0221	1.09%	20%	----
Organic / Inorganic Carbon (QC Lot: 1851146)											
FJ2500224-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	1.98	1.88	0.10	Diff <2x LOR	----
Total Sulfides (QC Lot: 1853386)											
VA25A1393-001	Anonymous	Sulfide, total (as S)	18496-25-8	E395	0.0015	mg/L	0.0719	0.0681	5.42%	20%	----
Total Metals (QC Lot: 1849991)											
VA25A1462-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.280	0.306	8.54%	20%	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00013	0.00013	0.000002	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1849991) - continued											
VA25A1462-001	Anonymous	Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00031	0.00026	0.00005	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.00799	0.00808	1.22%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000181	0.0000159	0.0000022	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	15.5	15.8	1.46%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000015	0.000022	0.000007	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	0.00119	0.00131	0.00012	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00026	0.00027	0.000007	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00686	0.00709	3.27%	20%	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.333	0.366	9.54%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000080	0.000092	0.000012	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.100	mg/L	2.34	2.30	1.56%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0215	0.0229	6.57%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000160	0.000153	0.000006	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00076	0.00081	0.00005	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.100	mg/L	0.185	0.184	0.0003	Diff <2x LOR	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00034	0.00035	0.000008	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000124	0.000112	0.000012	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	5.24	5.36	2.29%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	0.000018	0.000016	0.000001	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	2.83	2.80	1.27%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0395	0.0395	0.0214%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	3.50	3.58	0.08	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	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	0.00660	0.00655	0.748%	20%	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000016	0.000015	0.0000002	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: 1849991) - continued											
VA25A1462-001	Anonymous	Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00121	0.00128	0.00006	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.0043	0.0048	0.0005	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00040	mg/L	<0.00040	<0.00040	0	Diff <2x LOR	----
Total Metals (QC Lot: 1852032)											
VA25A1485-004	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	0.0000057	0.0000053	0.0000005	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1849444)											
KS2500215-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0050	mg/L	0.142	0.148	4.14%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00050	mg/L	0.0176	0.0177	0.539%	20%	----
		Arsenic, dissolved	7440-38-2	E421	0.00050	mg/L	0.0177	0.0179	1.42%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00050	mg/L	0.0525	0.0525	0.0546%	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	0.416	0.424	0.008	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.000100	mg/L	<0.000110	<0.000100	0.0000100	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.250	mg/L	482	483	0.158%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000050	mg/L	0.00144	0.00143	0.0788%	20%	----
		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	<0.00050	<0.00050	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00100	mg/L	0.00248	0.00245	0.00003	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000250	mg/L	<0.000250	<0.000250	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0050	mg/L	0.0214	0.0211	0.0003	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0250	mg/L	5.41	5.52	2.03%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Molybdenum, dissolved	7439-98-7	E421	0.000250	mg/L	0.341	0.337	1.05%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00250	mg/L	<0.00250	<0.00250	0	Diff <2x LOR	----
		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	215	220	2.38%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00100	mg/L	0.120	0.124	3.73%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000250	mg/L	0.0411	0.0406	1.30%	20%	----
		Silicon, dissolved	7440-21-3	E421	0.250	mg/L	13.3	13.5	1.22%	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	1760	1800	2.67%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00100	mg/L	6.97	7.22	3.48%	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: 1849444) - continued											
KS2500215-001	Anonymous	Sulfur, dissolved	7704-34-9	E421	2.50	mg/L	1910	1920	0.436%	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	0.745	0.795	6.50%	20%	----
		Uranium, dissolved	7440-61-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Vanadium, dissolved	7440-62-2	E421	0.00250	mg/L	0.0632	0.0667	5.39%	20%	----
		Zinc, dissolved	7440-66-6	E421	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00100	mg/L	<0.00100	<0.00100	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1852523)											
VA25A1464-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Speciated Metals (QC Lot: 1848694)											
VA24D4318-006	Anonymous	Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.00050	mg/L	0.00126	0.00125	0.000006	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: 1850339)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1853450)						
Solids, total suspended [TSS]	----	E160	3	mg/L	<3.0	----
Physical Tests (QCLot: 1853454)						
Solids, total dissolved [TDS]	----	E162	10	mg/L	<10	----
Anions and Nutrients (QCLot: 1850340)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1850341)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 1850342)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1850343)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1850344)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 1850346)						
Bromide	24959-67-9	E235.Br-L	0.05	mg/L	<0.050	----
Anions and Nutrients (QCLot: 1851148)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1851149)						
Nitrogen, total	7727-37-9	E366	0.03	mg/L	<0.030	----
Anions and Nutrients (QCLot: 1851150)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Organic / Inorganic Carbon (QCLot: 1851146)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Sulfides (QCLot: 1853386)						
Sulfide, total (as S)	18496-25-8	E395	0.0015	mg/L	<0.0015	----
Total Metals (QCLot: 1849991)						
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: 1849991) - 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	# 0.0067	B
Manganese, total	7439-96-5	E420	0.0001	mg/L	# 0.00024	B
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: 1852032)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1849444)						
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: 1849444) - 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: 1852523)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Speciated Metals (QCLot: 1848694)						
Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.0005	mg/L	<0.00050	----

Qualifiers

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

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: 1850339)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	500 mg/L	104	85.0	115	----
Physical Tests (QCLot: 1853450)									
Solids, total suspended [TSS]	----	E160	3	mg/L	150 mg/L	95.3	85.0	115	----
Physical Tests (QCLot: 1853454)									
Solids, total dissolved [TDS]	----	E162	10	mg/L	1000 mg/L	102	85.0	115	----
Anions and Nutrients (QCLot: 1850340)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	103	90.0	110	----
Anions and Nutrients (QCLot: 1850341)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1850342)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 1850343)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	98.9	90.0	110	----
Anions and Nutrients (QCLot: 1850344)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	98.8	90.0	110	----
Anions and Nutrients (QCLot: 1850346)									
Bromide	24959-67-9	E235.Br-L	0.05	mg/L	0.5 mg/L	97.1	85.0	115	----
Anions and Nutrients (QCLot: 1851148)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	102	85.0	115	----
Anions and Nutrients (QCLot: 1851149)									
Nitrogen, total	7727-37-9	E366	0.03	mg/L	0.5 mg/L	94.2	75.0	125	----
Anions and Nutrients (QCLot: 1851150)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.05 mg/L	92.5	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1851146)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	97.6	80.0	120	----
Total Sulfides (QCLot: 1853386)									
Sulfide, total (as S)	18496-25-8	E395	0.0015	mg/L	0.08 mg/L	105	80.0	120	----
Total Metals (QCLot: 1849991)									

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: 1849991) - continued									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	105	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	104	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	107	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	102	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	100	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	102	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	102	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	105	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	100	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	99.6	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	101	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	106	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	99.4	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	100	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	106	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	99.9	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	103	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	109	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	104	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	102	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	105	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	97.8	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	100	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	106	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	93.7	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	103	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	100	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	96.5	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	105	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	102	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	101	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	100	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: 1849991) - continued									
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	99.7	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	97.4	80.0	120	----
Total Metals (QCLot: 1852032)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	91.7	80.0	120	----
Dissolved Metals (QCLot: 1849444)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	101	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	97.1	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	102	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	98.2	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	97.2	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	99.8	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	98.1	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	99.1	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	95.2	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	102	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	98.8	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	98.4	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	97.6	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	97.5	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	100	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	99.4	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	97.6	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	96.7	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	97.5	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	119	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	102	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	98.5	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	99.5	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	103	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	92.7	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	102	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	103	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	95.6	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1849444) - continued									
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	96.6	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	99.7	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	97.2	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	97.5	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	# 127	80.0	120	MES
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	102	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	98.6	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	95.9	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	86.3	80.0	120	----
Speciated Metals (QCLot: 1848694)									
Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.0005	mg/L	0.25 mg/L	102	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: 1850340)										
VA25A1435-002	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	1940 mg/L	2000 mg/L	97.1	75.0	125	----
Anions and Nutrients (QCLot: 1850341)										
VA25A1435-002	Anonymous	Chloride	16887-00-6	E235.Cl	1940 mg/L	2000 mg/L	96.8	75.0	125	----
Anions and Nutrients (QCLot: 1850342)										
VA25A1435-002	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	48.4 mg/L	50 mg/L	96.9	75.0	125	----
Anions and Nutrients (QCLot: 1850343)										
VA25A1435-002	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	9.42 mg/L	10 mg/L	94.2	75.0	125	----
Anions and Nutrients (QCLot: 1850344)										
VA25A1435-002	Anonymous	Fluoride	16984-48-8	E235.F	19.2 mg/L	20 mg/L	95.8	75.0	125	----
Anions and Nutrients (QCLot: 1850346)										
VA25A1435-002	Anonymous	Bromide	24959-67-9	E235.Br-L	9.44 mg/L	10 mg/L	94.4	75.0	125	----
Anions and Nutrients (QCLot: 1851148)										
FJ2500224-002	Anonymous	Ammonia, total (as N)	7664-41-7	E298	ND mg/L	----	ND	75.0	125	----
Anions and Nutrients (QCLot: 1851149)										
VA25A1495-002	WLNG DS 1	Nitrogen, total	7727-37-9	E366	0.377 mg/L	0.4 mg/L	94.3	70.0	130	----
Anions and Nutrients (QCLot: 1851150)										
VA25A1495-002	WLNG DS 1	Phosphorus, total	7723-14-0	E372-U	0.0488 mg/L	0.05 mg/L	97.6	70.0	130	----
Organic / Inorganic Carbon (QCLot: 1851146)										
FJ2500224-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	5.18 mg/L	5 mg/L	104	70.0	130	----
Total Sulfides (QCLot: 1853386)										
VA25A1393-002	Anonymous	Sulfide, total (as S)	18496-25-8	E395	0.225 mg/L	0.2 mg/L	112	75.0	125	----
Total Metals (QCLot: 1849991)										
VA25A1464-001	Anonymous	Aluminum, total	7429-90-5	E420	ND mg/L	----	ND	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0993 mg/L	0.1 mg/L	99.3	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	0.189 mg/L	0.2 mg/L	94.6	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0461 mg/L	0.05 mg/L	92.2	70.0	130	----
		Boron, total	7440-42-8	E420	0.495 mg/L	0.5 mg/L	98.9	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.0201 mg/L	0.02 mg/L	101	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0501 mg/L	0.05 mg/L	100	70.0	130	----
		Chromium, total	7440-47-3	E420	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
Total Metals (QCLot: 1849991) - continued										
VA25A1464-001	Anonymous	Cobalt, total	7440-48-4	E420	ND mg/L	----	ND	70.0	130	----
		Copper, total	7440-50-8	E420	ND mg/L	----	ND	70.0	130	----
		Iron, total	7439-89-6	E420	ND mg/L	----	ND	70.0	130	----
		Lead, total	7439-92-1	E420	0.0939 mg/L	0.1 mg/L	93.9	70.0	130	----
		Lithium, total	7439-93-2	E420	0.480 mg/L	0.5 mg/L	96.0	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	ND mg/L	----	ND	70.0	130	----
		Molybdenum, total	7439-98-7	E420	ND mg/L	----	ND	70.0	130	----
		Nickel, total	7440-02-0	E420	ND mg/L	----	ND	70.0	130	----
		Phosphorus, total	7723-14-0	E420	48.4 mg/L	50 mg/L	96.9	70.0	130	----
		Potassium, total	7440-09-7	E420	ND mg/L	----	ND	70.0	130	----
		Rubidium, total	7440-17-7	E420	ND mg/L	----	ND	70.0	130	----
		Selenium, total	7782-49-2	E420	0.202 mg/L	0.2 mg/L	101	70.0	130	----
		Silicon, total	7440-21-3	E420	ND mg/L	----	ND	70.0	130	----
		Silver, total	7440-22-4	E420	0.0194 mg/L	0.02 mg/L	97.1	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	0.207 mg/L	0.2 mg/L	103	70.0	130	----
		Thallium, total	7440-28-0	E420	0.0187 mg/L	0.02 mg/L	93.4	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0982 mg/L	0.1 mg/L	98.2	70.0	130	----
		Tin, total	7440-31-5	E420	0.101 mg/L	0.1 mg/L	101	70.0	130	----
		Titanium, total	7440-32-6	E420	ND mg/L	----	ND	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0982 mg/L	0.1 mg/L	98.2	70.0	130	----
		Uranium, total	7440-61-1	E420	0.0196 mg/L	0.02 mg/L	98.2	70.0	130	----
		Vanadium, total	7440-62-2	E420	ND mg/L	----	ND	70.0	130	----
		Zinc, total	7440-66-6	E420	1.83 mg/L	2 mg/L	91.3	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.202 mg/L	0.2 mg/L	101	70.0	130	----
Total Metals (QCLot: 1852032)										
VA25A1485-005	Anonymous	Mercury, total	7439-97-6	E508	0.0000765 mg/L	0 mg/L	76.5	70.0	130	----
Dissolved Metals (QCLot: 1849444)										
VA25A1462-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.196 mg/L	0.2 mg/L	97.8	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0187 mg/L	0.02 mg/L	93.5	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0195 mg/L	0.02 mg/L	97.6	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0387 mg/L	0.04 mg/L	96.8	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00981 mg/L	0.01 mg/L	98.1	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.096 mg/L	0.1 mg/L	96.2	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00395 mg/L	0.004 mg/L	98.7	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0105 mg/L	0.01 mg/L	105	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0390 mg/L	0.04 mg/L	97.6	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0197 mg/L	0.02 mg/L	98.5	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1849444) - continued										
VA25A1462-001	Anonymous	Copper, dissolved	7440-50-8	E421	0.0193 mg/L	0.02 mg/L	96.6	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.92 mg/L	2 mg/L	96.1	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0198 mg/L	0.02 mg/L	99.0	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0958 mg/L	0.1 mg/L	95.8	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0192 mg/L	0.02 mg/L	95.8	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0390 mg/L	0.04 mg/L	97.6	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.4 mg/L	10 mg/L	104	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.02 mg/L	4 mg/L	101	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0190 mg/L	0.02 mg/L	94.9	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0412 mg/L	0.04 mg/L	103	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.30 mg/L	10 mg/L	93.0	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00388 mg/L	0.004 mg/L	96.9	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	20.1 mg/L	20 mg/L	101	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0393 mg/L	0.04 mg/L	98.4	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00385 mg/L	0.004 mg/L	96.3	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0190 mg/L	0.02 mg/L	95.2	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0387 mg/L	0.04 mg/L	96.8	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0200 mg/L	0.02 mg/L	99.8	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00402 mg/L	0.004 mg/L	100	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.0991 mg/L	0.1 mg/L	99.1	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.397 mg/L	0.4 mg/L	99.3	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0378 mg/L	0.04 mg/L	94.5	70.0	130	----
Dissolved Metals (QCLot: 1852523)										
VA25A1465-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000927 mg/L	0 mg/L	92.7	70.0	130	----
Speciated Metals (QCLot: 1848694)										
VA25A1262-001	Anonymous	Chromium, hexavalent [Cr VI], total	18540-29-9	E532	0.261 mg/L	0.25 mg/L	104	70.0	130	----

Chain of Custody (COC) / Analytical Request Form

ALS Environmental
www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here
(lab use only)

COC Number: 17 -

Page 1 of

Report To	Contact and company name below will appear on the final report
Company:	Triton Environmental
Contact:	
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	
Email 2	
Email 3	
Select Invoice	
Email 1 or Fax	
Email 2	

Project Information

ALS Account # / Quote #:	VA23-TRIT100-012
Job #:	11964
PO / AFE:	11964 - Task 20 - Phase 3C-4C
LSD:	
ALS Lab Work Order # (lab use only):	
ALS Contact:	
AFE/Cost Center:	
Major/Minor Code:	
Requisitioner:	
Location:	

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)		EMERGENCY	
	4 day [P4-20%] ☐		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: dd-mmm-yy hh:mm

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

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	Dissolved metals + mercury	Total hexavalent chromium	Total trivalent chromium	TSS	TDS	Nutrients (ammonia, ammonium, total nitrogen, total phosphorus)	Total sulfide (low) (as H2S), Unionized Sulfide (low)	Anions scan (Br, Cl, F, NO2, NO3, SO4)	General parameters (alkalinity)	DOC					SAMPLES ON HOLD	Sample is hazardous (please provide further details	NUMBER OF CONTAINERS
						F					P	P			F/P							
	WLNG US 1			Water	R	R	R	R	R	R	R	R	R	R	R						N	9
	pH: 7.18 cond: 35 temp: 5.5	21-Jun-25	12:02																			
	WLNG DS 1			Water	R	R	R	R	R	R	R	R	R	R	R						N	9
	pH: 7.8 cond: 67 temp: 5.3	"	13:08																			
	Tot																					

Environmental Division
Vancouver
Work Order Reference
VA25A1495

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 (wn list below

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			
				5			

SHIPMENT RELEASE (client use)

Time: 18:30

INITIAL SHIPMENT RECEPTION (lab use only)

Received by: Date: Time:

FINAL SHIPMENT RECEPTION (lab use only)

Received by: RJ Date: JAN-21 Time: 18:45

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

2025-1-21-Shafiei-C4EDD

Project Component:	Tunnel	**Site Name:**	Receiving Environment - Downstream of Discharge
Inspection Date:	01/21/2025	**Location:**	WLNG
Triton QP:	Farshad Shafiei	**Latitude/Longitude:**	49.669127 -123.248221
Temperature(c):	Low -4 High 2	**Permit:**	PE 110136
Weather Conditions:	Clear	**Ground Conditions:**	Wet

Observations

Time: 13:03:40 **Flow Volume (visual):** moderate

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:**	No
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?**	No

Describe Logger Maintenance

Cleaned

Photos

Photo: 1

Location: EAS DS1

Description: DS view

Photo: 2

Location: EAS DS1

Description: US view

Photos

Photo: 3

Location: EAS DS1

Description: Bank view

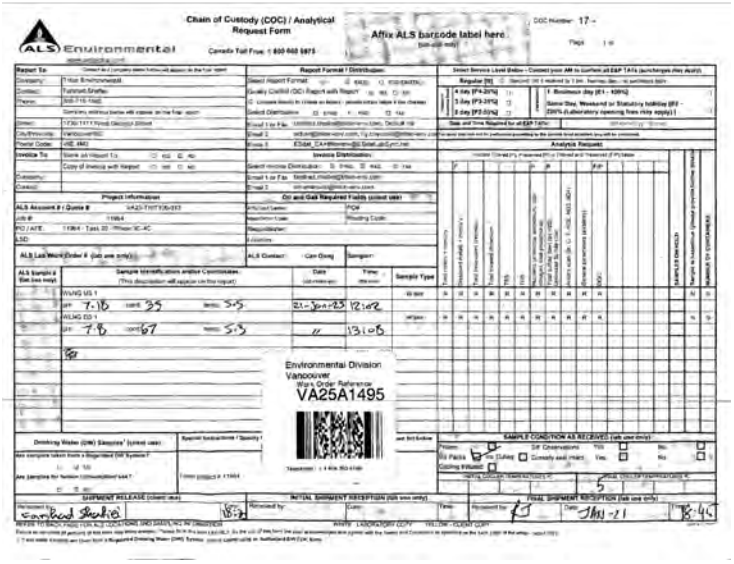


Photo: 4

Location: COC

Description: Lab COC

Sign Off

Report Prepared By:	Farshad Shafiei	**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

2025-1-21-Shafiei-92A7E

Project Component:	Tunnel	**Site Name:**	Receiving Environment - Upstream of Discharge
Inspection Date:	01/21/2025	**Location:**	WLNG
Triton QP:	Farshad Shafiei	**Latitude/Longitude:**	49.669455 -123.25087
Temperature(c):	Low -4 High 2	**Permit:**	PE 110136
Weather Conditions:	Clear	**Ground Conditions:**	Wet

Observations

Time: 12:01:00 **Flow Volume (visual):** moderate

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:**	No
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

Checked and cleaned

Photos

Photo: 1

Location: EAS US1

Description: US view

Photo: 2

Location: EAS US1

Description: Bank view

Photos

Photo: 3

Location: EAS US1

Description: DS view

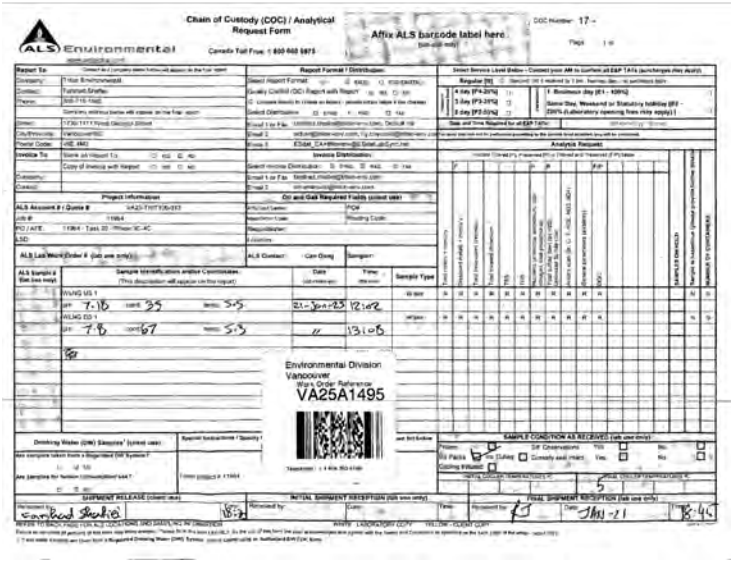


Photo: 4

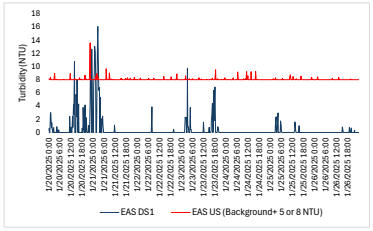
Location: COC

Description: Lab COC

Sign Off

Report Prepared By:	Farshad Shafiei	**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)
1/20/2025 0:00	3.8	26.0	0.0	6.9	12.4	0.5	1/20/2025 0:00	3.3	12.7	0.0	7.0	12.3	0.1	8.1
1/20/2025 0:15	3.4	22.1	0.0	6.7	12.6	0.0	1/20/2025 0:15	3.3	12.6	0.0	7.0	12.3	0.0	8.0
1/20/2025 0:30	5.4	87.8	0.0	7.4	11.9	0.0	1/20/2025 0:30	3.3	12.7	0.0	6.9	12.3	0.0	8.0
1/20/2025 0:45	6.0	92.2	0.0	7.5	11.7	3.0	1/20/2025 0:45	3.3	12.5	0.0	6.9	12.3	0.3	8.3
1/20/2025 1:00	6.0	91.0	0.0	7.5	11.7	3.0	1/20/2025 1:00	3.3	12.7	0.0	7.0	12.3	0.0	8.0
1/20/2025 1:15	5.9	88.3	0.0	7.5	11.8	0.6	1/20/2025 1:15	3.2	12.7	0.0	6.9	12.3	0.0	8.0
1/20/2025 1:30	5.9	86.1	0.0	7.5	11.8	1.5	1/20/2025 1:30	3.2	12.7	0.0	6.9	12.3	0.0	8.0
1/20/2025 1:45	5.3	71.5	0.0	7.4	11.9	0.7	1/20/2025 1:45	3.2	12.6	0.0	7.0	12.3	0.0	8.0
1/20/2025 2:00	3.7	25.3	0.0	6.9	12.5	0.0	1/20/2025 2:00	3.2	12.7	0.0	7.0	12.3	0.0	8.0
1/20/2025 2:15	3.3	22.5	0.0	6.8	12.6	0.0	1/20/2025 2:15	3.2	12.6	0.0	6.9	12.3	0.0	8.0
1/20/2025 2:30	5.2	86.8	0.0	7.4	12.0	0.7	1/20/2025 2:30	3.2	12.7	0.0	7.0	12.3	0.0	8.0
1/20/2025 2:45	5.8	93.3	0.0	7.5	11.8	0.0	1/20/2025 2:45	3.1	12.5	0.0	7.0	12.3	0.0	8.0
1/20/2025 3:00	5.8	93.6	0.0	7.5	11.8	0.0	1/20/2025 3:00	3.1	11.5	0.0	6.9	12.3	0.9	8.9
1/20/2025 3:15	4.3	39.1	0.0	7.2	12.2	0.0	1/20/2025 3:15	3.1	12.6	0.0	6.9	12.4	0.0	8.0
1/20/2025 3:30	3.4	23.6	0.0	6.8	12.6	0.0	1/20/2025 3:30	3.1	11.4	0.0	7.0	12.3	0.0	8.0
1/20/2025 3:45	3.2	22.0	0.0	6.7	12.6	0.0	1/20/2025 3:45	3.1	12.7	0.0	6.9	12.4	0.0	8.0
1/20/2025 4:00	3.1	21.3	0.0	6.7		0.0	1/20/2025 4:00	3.1	11.3	0.0	6.9	12.4	0.0	8.0
1/20/2025 4:15	3.0	22.1	0.0	6.7	12.7	0.9	1/20/2025 4:15	3.1	12.7	0.0	6.9	12.4	0.0	8.0
1/20/2025 4:30	4.5	73.4	0.0	7.3	12.2	0.0	1/20/2025 4:30	3.0	12.7	0.0	7.0	12.4	0.0	8.0
1/20/2025 4:45	5.5	92.0	0.0	7.5	11.9	0.3	1/20/2025 4:45	3.0	12.6	0.0	6.9	12.4	0.0	8.0
1/20/2025 5:00	4.1	40.2	0.0	7.2	12.3	0.0	1/20/2025 5:00	3.0	11.8	0.0	6.9	12.4	0.0	8.0
1/20/2025 5:15	5.3	88.2	0.0	7.5	11.9	0.3	1/20/2025 5:15	3.0	12.6	0.0	7.0	12.4	0.0	8.0
1/20/2025 5:30	3.8	32.8	0.0	7.1	12.4	0.0	1/20/2025 5:30	3.0	12.7	0.0	6.9	12.4	0.0	8.0
1/20/2025 5:45	3.2	22.7	0.0	6.8	12.7	0.0	1/20/2025 5:45	3.0	12.6	0.0	7.0	12.4	0.0	8.0
1/20/2025 6:00	3.0	21.5	0.0	6.7	12.7	0.0	1/20/2025 6:00	3.0	11.3	0.0	6.9	12.4	0.0	8.0
1/20/2025 6:15	5.2	92.9	0.0	7.5	12.0	0.0	1/20/2025 6:15	3.0	12.6	0.0	6.8	12.4	0.0	8.0
1/20/2025 6:30	5.7	95.7	0.0	7.5	11.8	0.0	1/20/2025 6:30	3.0	12.5	0.0	6.9	12.4	0.0	8.0
1/20/2025 6:45	5.8	95.8	0.0	7.6	11.8	0.0	1/20/2025 6:45	2.9	12.0	0.0	6.9	12.4	0.0	8.0
1/20/2025 7:00	3.9	34.1	0.0	7.1	12.4	0.0	1/20/2025 7:00	2.9	12.6	0.0	6.9	12.4	0.0	8.0
1/20/2025 7:15	3.2	23.3	0.0	6.8	12.7	0.0	1/20/2025 7:15	2.9	12.7	0.0	7.0	12.4	0.0	8.0
1/20/2025 7:30	3.0	21.8	0.0	6.7	12.7	0.0	1/20/2025 7:30	2.9	12.7	0.0	7.0	12.4	0.0	8.0
1/20/2025 7:45	3.6	54.1	0.0	7.1	12.5	0.0	1/20/2025 7:45	2.9	11.4	0.0	6.9	12.4	0.0	8.0
1/20/2025 8:00	4.6	75.3	0.0	7.4	12.1	0.0	1/20/2025 8:00	2.9	12.7	0.0	7.0	12.4	0.0	8.0
1/20/2025 8:15	3.2	25.6	0.0	6.9	12.6	0.0	1/20/2025 8:15	2.9	12.7	0.0	6.9	12.4	0.0	8.0
1/20/2025 8:30	3.7	55.7	0.0	7.0	12.6	0.0	1/20/2025 8:30	2.9	12.6	0.0	7.0	12.4	0.0	8.0
1/20/2025 8:45	5.3	88.8	0.0	7.5	11.9	0.0	1/20/2025 8:45	2.9	12.7	0.0	6.9	12.4	0.0	8.0
1/20/2025 9:00	5.7	95.2	0.0	7.5	11.8	0.0	1/20/2025 9:00	2.9	12.6	0.0	7.0	12.4	0.0	8.0
1/20/2025 9:15	5.8	95.1	0.0	7.6	11.8	0.0	1/20/2025 9:15	2.9	12.7	0.0	7.0	12.4	0.0	8.0
1/20/2025 9:30	5.5	82.1	0.0	7.5	11.8	0.0	1/20/2025 9:30	2.9	12.6	0.0	6.9	12.4	0.0	8.0
1/20/2025 9:45	3.4	25.3	0.0	6.9	12.6	0.0	1/20/2025 9:45	2.9	12.6	0.0	7.0	12.4	0.0	8.0
1/20/2025 10:00	3.0	22.4	0.0	6.8	12.7	0.0	1/20/2025 10:00	2.9	12.6	0.0	7.0	12.4	0.0	8.0
1/20/2025 10:15	2.9	21.6	0.0	6.7	12.7	0.0	1/20/2025 10:15	2.9	12.6	0.0	6.9	12.5	0.0	8.0
1/20/2025 10:30	2.9	20.9	0.0	6.7	12.7	0.0	1/20/2025 10:30	2.9	12.5	0.0	6.9	12.4	0.0	8.0
1/20/2025 10:45	2.9	20.5	0.0	6.7	12.7	0.0	1/20/2025 10:45	3.0	11.4	0.0	7.0	12.4	0.0	8.0
1/20/2025 11:00	5.3	89.4	0.0	7.5	11.9	0.0	1/20/2025 11:00	3.1	12.6	0.0	7.0	12.4	0.0	8.0
1/20/2025 11:15	5.7	95.2	0.0	7.5	11.8	2.4	1/20/2025 11:15	3.1	12.0	0.0	7.0	12.4	0.0	8.0
1/20/2025 11:30	5.9	95.6	0.0	7.6	11.7	0.0	1/20/2025 11:30	3.1	12.6	0.0	7.0	12.4	0.9	8.9
1/20/2025 11:45	5.8	89.7	0.0	7.6	11.7	0.0	1/20/2025 11:45	3.2	12.6	0.0	6.9	12.4	0.0	8.0
1/20/2025 12:00	4.3	52.3	0.0	7.2	12.3	0.7	1/20/2025 12:00	3.2	12.6	0.0	7.0	12.4	0.0	8.0
1/20/2025 12:15	3.5	23.1	0.0	6.8	12.5	0.0	1/20/2025 12:15	3.3	12.6	0.0	6.9	12.4	0.0	8.0
1/20/2025 12:30	3.4	21.5	0.0	6.7	12.6	0.0	1/20/2025 12:30	3.3	12.6	0.0	7.0	12.3	0.0	8.0
1/20/2025 12:45	5.9	96.9	0.0	7.6	11.7	2.4	1/20/2025 12:45	3.4	11.5	0.0	6.9	12.3	0.0	8.0
1/20/2025 13:00	5.5	70.9	0.0	7.5	11.8	0.7	1/20/2025 13:00	3.4	12.6	0.0	6.9	12.3	0.0	8.0
1/20/2025 13:15	5.6	87.3	0.0	7.5	11.8	4.2	1/20/2025 13:15	3.5	12.4	0.0	7.0	12.3	0.0	8.0
1/20/2025 13:30	4.5	51.4	0.0	7.0	12.4	2.7	1/20/2025 13:30	3.5	12.7	0.0	7.0	12.3	0.0	8.0
1/20/2025 13:45	6.1	89.2	0.0	7.6	11.6	10.8	1/20/2025 13:45	3.5	12.7	0.0	6.9	12.3	0.0	8.0
1/20/2025 14:00	4.0	24.8	0.0	6.9	12.3	0.0	1/20/2025 14:00	3.5	12.6	0.0	6.9	12.3	0.1	8.1
1/20/2025 14:15	3.7	22.1	0.0	6.8	12.4	0.0	1/20/2025 14:15	3.6	11.4	0.0	7.0	12.2	0.0	8.0
1/20/2025 14:30	4.3	33.9	0.0	7.1	12.2	0.0	1/20/2025 14:30	3.6	12.6	0.0	6.9	12.2	0.0	8.0
1/20/2025 14:45	5.0	74.1	0.0	7.2	12.1	5.7	1/20/2025 14:45	3.6	12.4	0.0	7.0	12.2	0.0	8.0
1/20/2025 15:00	5.9	96.4	0.0	7.5	11.7	2.4	1/20/2025 15:00	3.6	12.7	0.0	7.0	12.2	0.0	8.0
1/20/2025 15:15	6.3	97.5	0.0	7.6	11.6	8.0	1/20/2025 15:15	3.7	12.6	0.0	7.0	12.2	0.0	8.0
1/20/2025 15:30	5.8	74.9	0.0	7.5	11.7	2.0	1/20/2025 15:30	3.7	11.4	0.0	7.0	12.2	0.0	8.0
1/20/2025 15:45	4.1	25.3	0.0	6.9	12.3	0.0	1/20/2025 15:45	3.7	12.6	0.0	7.0	12.2	0.0	8.0
1/20/2025 16:00	5.2	78.9	0.0	7.3	12.0	4.3	1/20/2025 16:00	3.7	12.7	0.0	7.0	12.2	0.0	8.0
1/20/2025 16:15	4.4	31.4	0.0	7.1	12.2	0.0	1/20/2025 16:15	3.7	12.6	0.0	7.0	12.1	0.0	8.0
1/20/2025 16:30	3.8	22.3	0.0	6.8	12.4	0.0	1/20/2025 16:30	3.7	11.5	0.0	7.0	12.2	0.3	8.3
1/20/2025 16:45	3.7	21.3	0.0	6.7	12.4	0.0	1/20/2025 16:45	3.7	12.7	0.0	6.9	12.2	0.0	8.0
1/20/2025 17:00	3.6	20.8	0.0	6.7	12.4	0.0	1/20/2025 17:00	3.7	12.6	0.0	7.0	12.1	0.0	8.0
1/20/2025 17:15	3.6	20.5	0.0	6.7	12.5	0.0	1/20/2025 17:15	3.7	12.1	0.0	7.0	12.1	0.0	8.0
1/20/2025 17:30	3.6	20.3	0.0	6.6	12.5	0.0	1/20/2025 17:30	3.7	12.7	0.0	7.0	12.1	0.0	8.0
1/20/2025 17:45	3.5	20.2	0.0	6.7	12.5	0.0	1/20/2025 17:45	3.7	12.8	0.0	6.9	12.1	0.0	8.0
1/20/2025 18:00	4.8	58.6	0.0	7.3	11.9	0.6	1/20/2025 18:00	3.7	12.7	0.0	7.0	12.1	0.0	8.0
1/20/2025 18:15	3.6	21.8	0.0	6.8	12.4	0.0	1/20/2025 18:15	3.6	12.7	0.0	6.9	12.1	0.0	8.0
1/20/2025 18:30	6.1	100.3	0.0	7.5	11.6	3.7	1/20/2025 18:30	3.6	12.7	0.0	7.0	12.1	0.0	8.0
1/20/2025 18:45	6.4	97.4	0.0	7.6	11.5	0.3	1/20/2025 18:45	3.6	12.8	0.0	6.9	12.1	0.0	8.0
1/20/2025 19:00	4.6	48.1	0.0	7.2	12.1	0.7	1/20/2025 19:00	3.6	12.5	0.0	6.9	12.2	0.0	8.0
1/20/2025 19:15	3.8	23.6	0.0	6.9	12.4	0.0	1/20/2025 19:15	3.6	12.9	0.0	7.0	12.1	0.0	8.0
1/20/2025 19:30	4.9	72.9	0.0	7.2	12.1	4.1	1/20/2025 19:30	3.6	12.5	0.0	6.9	12.1	0.7	8.7
1/20/2025 19:45	6.4	98.8	0.0	7.5	11.5	0.0	1/20/2025 19:45	3.6	12.8	0.0	6.9	12.1	0.0	8.0
1/20/2025 20:00	6.6	99.2	0.0	7.6	11.5	0.1	1/20/2025 20:00	3.6	12.7	0.0	6.9	12.1	0.1	8.1
1/20/2025 20:15	6.6	99.4	0.0	7.6	11.5	2.2	1/20/2025 20:15	3.6	11.5	0.0	6.9	12.1	0.0	8.0
1/20/2025 20:30	4.8	38.7	0.0	7.2	12.0	0.0	1/20/2025 20:30	3.6	12.8	0.0	7.0	12.1	0.0	8.0
1/20/2025 20:45	3.8	23.9	0.0	6.8	12.3	0.0	1/20/2025 20:45	3.6	12.8	0.0	7.0	12.1	0.0	8.0
1/20/2025 21:00	3.9	28.7	0.0	6.9	12.3	0.0	1/20/2025 21:00	3.5	12.6	0.0	6.9	12.1	0.0	8.0
1/20/2025 21:15	3.6	21.8	0.0	6.8	12.4	0.0	1/20/2025 21:15	3.5	12.8	0.0	7.0	12.2	0.0	8.0
1/20/2025 21:30	6.5	100.2	0.0	7.5	11.5	1.0	1/20/2025 21:30	3.5	12.6	0.0	7.0	12.1	0.0	8.0
1/20/2025 21:45	4.7	38.5	0.0	7.2	12.0	0.0	1/20/2025 21:45	3.5	12.8	0.0	7.0	12.2	0.1	8.1
1/20/2025 22:00	3.7	23.2	0.0	6.8	12.4	0.0	1/20/2025 22:00	3.5	12.7	0.0	7.0	12.1	0.0	8.0
1/20/2025 22:15	5.8	94.4	0.0	7.4	11.7	4.7	1/20/2025 22:15	3.5	12.8	0.0	7.0	12.2	5.6	13.6
1/20/2025 22:30	6.6	101.4	0.0	7.6	11.5	13.3	1/20/2025 22:30	3.5	12.5	0.0	7.0	12.2	0.0	8.0
1/20/2025 22:45	6.7	102.1	0.0	7.6	11.4	9.6	1/20/2025 22:45	3.5	12.8	0.0	6.9	12.2	0.0	8.0
1/20/2025 23:00	4.2	28.8	0.0	7.0	12.2	0.0	1/20/2025 23:00	3.4	12.7	0.0	6.9	12.2	0.0	8.0
1/20/2025 23:15	3.7	23.2	0.0	6.8	12.4	12.6	1/20/2025 23:15	3.4	12.8	0.0	6.9	12.2	0.0	8.0
1/20/2025 23:30	5.2	68.6	0.0	7.4	11.8	3.9	1/20/2025 23:30	3.4	12.7	0.0	7.0	12.2	0.0	8.0
1/20/2025 23:45	3.6	23.1	0.0	6.8	12.4	0.0	1/20/2025 23:45	3.4	12.8	0.0	7.0	12.2	0.0	8.0
1/21/2025 0:00	3.5	23.2	0.0	6.8	12.4	0.0	1/21/2025 0:00	3.4	12.6	0.0	6.9	12.2	0.0	8.0
1/21/2025 0:15	4.5	65.0	0.0	7.1	12.2	7.3	1/21/2025 0:15	3.4	12.8	0.0	7.0	12.2	0.0	8.0
1/21/2025 0:30	5.6	80.4	0.0	7.5	11.7	9.0	1/21/2025 0:30	3.4	12.6	0.0	6.9	12.2	0.0	8.0
1/21/2025 0:45	6.5	100.6	0.0	7.6	11.5	13.0	1/21/2025 0:45	3.4	12.8	0.0	7.0	12.2	0.0	8.0
1/21/2025 1:00	6.2	95.4	0.0	7.5	11.6	12.1	1/21/2025 1:00	3.3	12.6	0.0	7.0	12.2	0.0	8.0
1/21/2025 1:15	6.6	102.0	0.0	7.6	11.5	9.1	1/21/2025 1:15	3.3	11.6	0.0	7.0	12.2	0.5	8.5
1/21/2025 1:30	4.0	27.7	0.0	7.0	12.3	0.0	1/21/2025 1:30	3.3	12.7	0.0	6.9	12.2	0.0	8.0
1/21/2025 1:45	3.5	23.1	0.0	6.8	12.5	0.0	1/21/2025 1:45	3.3	12.7	0.0	6.9	12.2	0.1	8.1
1/21/2025 2:00	5.1	84.3	0.0	7.3	12.0	4.6	1/21/2025 2:00	3.3	12.7	0.0	7.0	12.2	0.9	8.9
1/21/2025 2:15	6.3	101.8	0.0	7.6	11.5	14.2	1/21/2025 2:15	3.2	12.5	0.0	7.0	12.2	0.0	8.0
1/21/2025 2:30	6.5	102.1	0.0	7.6	11.5	16.1	1/21/2025 2:30	3.2	11.8	0.0	7.0	12.2	0.4	8.4
1/21/2025 2:45	5.8	76.4	0.0	7.5	11.6	9.4	1/21/2025 2:45	3.2	12.7	0.0	6.9	12.2	0.0	8.0
1/21/2025 3:00	4.5	56.5	0.0	7.1	12.3	6.4	1/21/2025 3:00	3.2	12.6	0.0	7.0	12.2	0.0	8.0
1/21/2025 3:15	6.0	84.3	0.0	7.6	11.6	6.8	1/21/2025 3:15	3.2	12.7	0.0	6.9	12.2	0.0	8.0
1/21/2025 3:30	3.7	25.3	0.0	6.9	12.4	0.0	1/21/2025 3:30	3.2	12.6	0.0	6.9	12.2	0.0	8.0
1/21/2025 3:45	5.9	91.6	0.0	7.5	11.7	5.3	1/21/2025 3:45	3.2	12.7	0.0	6.9	12.2	0.0	8.0
1/21/2025 4:00	3.7	25.2	0.0	6.9	12.4	0.0	1/21/2025 4:00	3.2	12.7	0.0	6.9	12.2	0.0	8.0
1/21/2025 4:15	5.7	84.0	0.0	7.5	11.6	2.1	1/21/2025 4:15	3.2	12.7	0.0	7.0	12.2	0.0	8.0
1/21/2025 4:30	3.6	24.2	0.0	6.9	12.4	0.0	1/21/2025 4:30	3.2	12.7	0.0	7.0	12.2	0.0	8.0
1/21/2025 4:45	4.8	75.0	0.0	7.2	12.2	1.6	1/21/2025 4:45	3.3	12.8	0.0	7.0	12.2	0.0	8.0
1/21/2025 5:00	6.5	101.2	0.0	7.6	11.5	2.4	1/21/2025 5:00	3.2	12.7	0.0	6.9	12.2	0.0	8.0
1/21/2025 5:15	6.7	101.8	0.0	7.6	11.4	1.1	1/21/2025 5:15	3.2	11.3	0.0	6.9	12.3	0.0	8.0
1/21/2025 5:30	5.6	65.3	0.0	7.5	11.7	0.0	1/21/2025 5:30	3.2	12.7	0.0	6.9	12.3	0.0	8.0
1/21/2025 5:45	3.7	25.2	0.0	6.9	12.4	0.0	1/21/2025 5:45	3.2	12.7	0.0	7.0	12.2	0.0	8.0
1/21/2025 6:00	5.5	90.4	0.0	7.4	11.8	0.0	1/21/2025 6:00	3.1	12.0	0.0	6.9	12.3	0.0	8.0
1/21/2025 6:15	4.7	49.1	0.0	7.4	12.0	0.0	1/21/2025 6:15	3.1	12.7	0.0	6.9	12.3	0.0	8.0
1/21/2025 6:30	3.4	23.5	0.0	6.8	12.5	0.0	1/21/2025 6:30	3.1	12.7	0.0	7.0	12.3	0.0	8.0
1/21/2025 6:45	3.2	22.9	0.0	6.8	12.6	0.0	1/21/2025 6:45	3.1	12.6	0.0	6.9	12.3	0.0	8.0
1/21/2025 7:00	5.5	88.8	0.0	7.5	11.9	0.0	1/21/2025 7:00	3.0	12.8	0.0	7.0	12.3	1.6	9.6
1/21/2025 7:15	6.3	98.5	0.0	7.6	11.5	0.0	1/21/2025 7:15	3.0	12.7	0.0	6.9	12.3	0.0	8.0
1/21/2025 7:30	5.3	62.2	0.0	7.4	11.8	0.0	1/21/2025 7:30	3.0	12.7	0.0	6.9	12.3	0.0	8.0
1/21/2025 7:45	3.4	24.7	0.0	6.9	12.5	0.0	1/21/2025 7:45	3.0	12.7	0.0	6.9	12.3	0.0	8.0
1/21/2025 8:00	3.1	22.4	0.0	6.8	12.6	0.0	1/21/2025 8:00	2.9	11.4	0.0	6.9	12.3	0.0	8.0
1/21/2025 8:15	5.2	90.4	0.0	7.4	12.0	0.0	1/21/2025 8:15	2.9	12.8	0.0	7.0	12.4	0.0	8.0
1/21/2025 8:30	6.1	98.3	0.0	7.6	11.6	0.0	1/21/2025 8:30	2.9	12.7	0.0	6.9	12.4	0.0	8.0
1/21/2025 8:45	6.3	99.1	0.0	7.6	11.6	0.0	1/21/2025 8:45	2.9	12.6	0.0	6.9	12.4	1.0	9.0
1/21/2025 9:00	4.1	34.6	0.0	7.2	12.3	0.0	1/21/2025 9:00	2.9	11.8	0.0	6.9	12.4	0.0	8.0



1/21/2025 9:15	3.2	23.7	0.0	6.8	12.6	0.0	1/21/2025 9:15	2.8	12.7	0.0	6.9	12.4	0.0	8.0
1/21/2025 9:30	3.0	22.1	0.0	6.7	12.7	0.0	1/21/2025 9:30	2.8	12.5	0.0	7.0	12.4	0.0	8.0
1/21/2025 9:45	5.7	97.2	0.0	7.5	11.8	0.0	1/21/2025 9:45	2.8	12.8	0.0	7.0	12.4	0.1	8.1
1/21/2025 10:00	6.1	98.0	0.0	7.6	11.6	0.0	1/21/2025 10:00	2.8	12.6	0.0	7.0	12.4	0.0	8.0
1/21/2025 10:15	5.2	64.8	0.0	7.5	11.9	0.0	1/21/2025 10:15	2.8	12.7	0.0	7.0	12.5	0.0	8.0
1/21/2025 10:30	3.3	24.6	0.0	6.8	12.6	0.0	1/21/2025 10:30	2.9	12.6	0.0	7.0	12.4	0.0	8.0
1/21/2025 10:45	3.0	22.4	0.0	6.8	12.7	0.0	1/21/2025 10:45	2.9	11.5	0.0	7.0	12.4	0.0	8.0
1/21/2025 11:00	2.9	21.5	0.0	6.7	12.7	0.0	1/21/2025 11:00	3.0	12.7	0.0	6.9	12.4	0.0	8.0
1/21/2025 11:15	5.9	96.9	0.0	7.5	11.7	0.0	1/21/2025 11:15	3.0	12.4	0.0	7.0	12.4	0.0	8.0
1/21/2025 11:30	5.4	77.1	0.0	7.5	11.9	1.1	1/21/2025 11:30	3.1	12.7	0.0	7.0	12.4	0.0	8.0
1/21/2025 11:45	3.7	26.3	0.0	7.0	12.5	0.0	1/21/2025 11:45	3.1	12.4	0.0	7.0	12.4	0.0	8.0
1/21/2025 12:00	3.3	22.3	0.0	6.8	12.6	0.0	1/21/2025 12:00	3.1	11.9	0.0	7.0	12.4	0.0	8.0
1/21/2025 12:15	3.9	44.3	0.0	6.8	12.6	0.0	1/21/2025 12:15	3.2	12.6	0.0	6.9	12.4	0.0	8.0
1/21/2025 12:30	6.3	95.9	0.0	7.6	11.6	0.0	1/21/2025 12:30	3.3	12.5	0.0	7.0	12.4	0.0	8.0
1/21/2025 12:45	6.3	88.8	0.0	7.6	11.6	0.0	1/21/2025 12:45	3.3	12.7	0.0	6.9	12.3	0.0	8.0
1/21/2025 13:00	3.9	25.4	0.0	6.9		0.0	1/21/2025 13:00	3.4	12.5	0.0	7.0	12.3	0.0	8.0
1/21/2025 13:15	3.6	22.4	0.0	6.8	12.5	0.0	1/21/2025 13:15	3.4	11.9	0.0	7.0	12.3	0.0	8.0
1/21/2025 13:30	3.5	21.4	0.0	6.7	12.5	0.0	1/21/2025 13:30	3.5	12.7	0.0	6.9	12.3	0.0	8.0
1/21/2025 13:45	6.4	95.5	0.0	7.6	11.6	0.0	1/21/2025 13:45	3.5	12.5	0.0	7.0	12.3	0.0	8.0
1/21/2025 14:00	6.2	81.4	0.0	7.5	11.5	0.0	1/21/2025 14:00	3.6	12.8	0.0	7.0	12.2	0.0	8.0
1/21/2025 14:15	5.0	47.5	0.0	7.3	12.0	0.0	1/21/2025 14:15	3.6	12.5	0.0	7.0	12.2	0.0	8.0
1/21/2025 14:30	4.0	25.1	0.0	7.0	12.3	0.0	1/21/2025 14:30	3.6	12.8	0.0	7.0	12.2	0.0	8.0
1/21/2025 14:45	5.9	89.4	0.0	7.4	11.8	0.0	1/21/2025 14:45	3.7	12.7	0.0	7.0	12.2	0.0	8.0
1/21/2025 15:00	6.7	100.5	0.0	7.6	11.5	0.0	1/21/2025 15:00	3.7	11.5	0.0	7.0	12.2	0.2	8.2
1/21/2025 15:15	6.8	102.4	0.0	7.6	11.5	0.0	1/21/2025 15:15	3.7	12.7	0.0	6.9	12.2	0.0	8.0
1/21/2025 15:30	6.9	103.9	0.0	7.6	11.4	0.0	1/21/2025 15:30	3.7	12.4	0.0	7.0	12.2	0.1	8.1
1/21/2025 15:45	4.8	34.3	0.0	7.2	12.1	0.0	1/21/2025 15:45	3.7	11.8	0.0	7.0	12.2	0.0	8.0
1/21/2025 16:00	4.1	24.0	0.0	6.9	12.3	0.0	1/21/2025 16:00	3.7	12.7	0.0	6.9	12.2	0.0	8.0
1/21/2025 16:15	3.9	22.4	0.0	6.8	12.4	0.0	1/21/2025 16:15	3.7	12.5	0.0	7.0	12.2	0.0	8.0
1/21/2025 16:30	6.5	103.6	0.0	7.6	11.6	0.0	1/21/2025 16:30	3.7	12.8	0.0	7.0	12.2	0.0	8.0
1/21/2025 16:45	5.9	89.5	0.0	7.5	11.8	0.0	1/21/2025 16:45	3.7	12.7	0.0	6.9	12.2	0.0	8.0
1/21/2025 17:00	4.3	32.1	0.0	7.1	12.2	0.0	1/21/2025 17:00	3.6	12.8	0.0	7.0	12.2	0.0	8.0
1/21/2025 17:15	3.8	22.9	0.0	6.8	12.4	0.0	1/21/2025 17:15	3.6	12.5	0.0	7.0	12.2	0.0	8.0
1/21/2025 17:30	3.7	21.7	0.0	6.8	12.5	0.0	1/21/2025 17:30	3.6	12.8	0.0	6.9	12.2	0.2	8.2
1/21/2025 17:45	6.4	104.9	0.0	7.6	11.6	0.0	1/21/2025 17:45	3.6	12.7	0.0	6.9	12.2	0.0	8.0
1/21/2025 18:00	5.9	77.6	0.0	7.5	11.7	0.0	1/21/2025 18:00	3.6	12.8	0.0	7.0	12.2	0.0	8.0
1/21/2025 18:15	4.2	28.7	0.0	7.0	12.3	0.0	1/21/2025 18:15	3.5	12.7	0.0	6.9	12.2	0.0	8.0
1/21/2025 18:30	5.9	98.3	0.0	7.4	11.8	0.0	1/21/2025 18:30	3.5	11.7	0.0	7.0	12.2	0.3	8.3
1/21/2025 18:45	6.4	97.0	0.0	7.6	11.6	0.0	1/21/2025 18:45	3.5	12.9	0.0	6.9	12.2	0.0	8.0
1/21/2025 19:00	6.6	105.3	0.0	7.6	11.6	0.0	1/21/2025 19:00	3.5	12.7	0.0	6.9	12.2	0.0	8.0
1/21/2025 19:15	5.8	71.5	0.0	7.5	11.7	0.0	1/21/2025 19:15	3.5	12.9	0.0	7.0	12.2	0.0	8.0
1/21/2025 19:30	4.0	25.9	0.0	6.9	12.4	0.0	1/21/2025 19:30	3.5	12.9	0.0	7.0	12.2	0.0	8.0
1/21/2025 19:45	3.7	23.2	0.0	6.8	12.5	0.0	1/21/2025 19:45	3.5	12.9	0.0	6.9	12.2	0.0	8.0
1/21/2025 20:00	6.4	105.8	0.0	7.6	11.6	0.0	1/21/2025 20:00	3.5	12.8	0.0	7.0	12.2	0.2	8.2
1/21/2025 20:15	6.6	107.2	0.0	7.6	11.5	0.0	1/21/2025 20:15	3.5	12.9	0.0	6.9	12.2	0.0	8.0
1/21/2025 20:30	4.3	30.0	0.0	7.1	12.3	0.0	1/21/2025 20:30	3.5	12.7	0.0	7.0	12.2	0.0	8.0
1/21/2025 20:45	3.7	23.8	0.0	6.8	12.5	0.0	1/21/2025 20:45	3.5	12.9	0.0	7.0	12.2	0.0	8.0
1/21/2025 21:00	3.5	22.4	0.0	6.7		0.0	1/21/2025 21:00	3.5	12.8	0.0	7.0	12.2	0.0	8.0
1/21/2025 21:15	3.5	21.7	0.0	6.7	12.6	0.0	1/21/2025 21:15	3.5	11.6	0.0	6.9	12.2	0.0	8.0
1/21/2025 21:30	6.2	105.5	0.0	7.5	11.7	0.0	1/21/2025 21:30	3.5	12.8	0.0	6.8	12.3	0.0	8.0
1/21/2025 21:45	6.5	105.7	0.0	7.6	11.6	0.0	1/21/2025 21:45	3.4	12.5	0.0	7.0	12.3	0.0	8.0
1/21/2025 22:00	6.2	99.4	0.0	7.6	11.7	0.0	1/21/2025 22:00	3.4	12.0	0.0	7.0	12.3	0.0	8.0
1/21/2025 22:15	4.0	27.3	0.0	7.0	12.4	0.0	1/21/2025 22:15	3.4	12.6	0.0	6.9	12.3	0.3	8.3
1/21/2025 22:30	3.6	23.2	0.0	6.8	12.5	0.0	1/21/2025 22:30	3.4	12.8	0.0	7.0	12.3	0.0	8.0
1/21/2025 22:45	4.3	60.4	0.0	7.2	12.3	0.0	1/21/2025 22:45	3.4	12.7	0.0	7.0	12.3	0.0	8.0
1/21/2025 23:00	5.9	100.1	0.0	7.5		0.0	1/21/2025 23:00	3.3	12.0	0.0	7.0	12.3	0.0	8.0
1/21/2025 23:15	6.4	104.3	0.0	7.6	11.6	0.0	1/21/2025 23:15	3.3	12.8	0.0	6.9	12.3	0.0	8.0
1/21/2025 23:30	6.6	105.0	0.0	7.6	11.6	0.0	1/21/2025 23:30	3.3	11.8	0.0	6.9	12.3	0.0	8.0
1/21/2025 23:45	4.6	37.9	0.0	7.2	12.2	0.0	1/21/2025 23:45	3.3	12.8	0.0	6.9	12.4	0.0	8.0
1/22/2025 0:00	5.6	85.7	0.0	7.5	11.9	0.0	1/22/2025 0:00	3.3	12.5	0.0	7.0	12.3	0.0	8.0
1/22/2025 0:15	3.9	27.9	0.0	7.0	12.4	0.0	1/22/2025 0:15	3.3	11.8	0.0	7.0	12.4	0.0	8.0
1/22/2025 0:30	5.9	99.9	0.0	7.5	11.8	0.0	1/22/2025 0:30	3.3	12.8	0.0	7.0	12.3	0.0	8.0
1/22/2025 0:45	6.4	103.8	0.0	7.6	11.6	0.0	1/22/2025 0:45	3.3	12.8	0.0	6.9	12.3	0.0	8.0
1/22/2025 1:00	4.4	34.3	0.0	7.2	12.3	0.0	1/22/2025 1:00	3.2	12.5	0.0	6.9	12.4	0.0	8.0
1/22/2025 1:15	3.5	24.1	0.0	6.8	12.6	0.0	1/22/2025 1:15	3.2	12.2	0.0	6.9	12.4	0.0	8.0
1/22/2025 1:30	3.3	22.5	0.0	6.7	12.6	0.0	1/22/2025 1:30	3.2	12.6	0.0	7.0	12.4	0.2	8.2
1/22/2025 1:45	5.8	100.9	0.0	7.5	11.8	0.0	1/22/2025 1:45	3.2	12.8	0.0	6.9	12.4	0.0	8.0
1/22/2025 2:00	6.3	104.2	0.0	7.6	11.7	0.0	1/22/2025 2:00	3.1	12.6	0.0	7.0	12.4	0.0	8.0
1/22/2025 2:15	6.2	96.4	0.0	7.6	11.7	0.0	1/22/2025 2:15	3.1	12.8	0.0	6.9	12.4	0.0	8.0
1/22/2025 2:30	5.4	74.0	0.0	7.5	11.9	0.0	1/22/2025 2:30	3.1	12.6	0.0	7.0	12.4	0.0	8.0
1/22/2025 2:45	3.6	25.6	0.0	6.9	12.6	0.0	1/22/2025 2:45	3.1	12.8	0.0	7.0	12.4	0.0	8.0
1/22/2025 3:00	3.2	23.0	0.0	6.8	12.7	0.0	1/22/2025 3:00	3.0	12.6	0.0	6.9	12.4	0.0	8.0
1/22/2025 3:15	3.1	22.0	0.0	6.7	12.7	0.0	1/22/2025 3:15	3.0	12.1	0.0	6.9	12.4	0.0	8.0
1/22/2025 3:30	5.6	100.5	0.0	7.4	11.9	0.0	1/22/2025 3:30	3.0	12.7	0.0	6.9	12.4	0.0	8.0
1/22/2025 3:45	4.1	44.1	0.0	7.2	12.3	0.0	1/22/2025 3:45	3.0	12.8	0.0	6.9	12.4	0.0	8.0
1/22/2025 4:00	6.0	95.2	0.0	7.6	11.7	0.0	1/22/2025 4:00	2.9	12.5	0.0	6.9	12.5	0.0	8.0
1/22/2025 4:15	3.5	26.3	0.0	6.9	12.5	0.0	1/22/2025 4:15	2.9	11.9	0.0	6.9	12.5	0.0	8.0
1/22/2025 4:30	3.1	22.9	0.0	6.8	12.7	0.0	1/22/2025 4:30	2.9	12.8	0.0	6.8	12.5	0.0	8.0
1/22/2025 4:45	2.9	21.9	0.0	6.7	12.8	0.0	1/22/2025 4:45	2.9	12.7	0.0	6.9	12.5	0.0	8.0
1/22/2025 5:00	6.0	100.2	0.0	7.5	11.8	0.0	1/22/2025 5:00	2.9	12.8	0.0	6.9	12.5	0.0	8.0
1/22/2025 5:15	6.0	97.3	0.0	7.5	11.8	0.0	1/22/2025 5:15	2.9	12.8	0.0	7.0	12.5	0.0	8.0
1/22/2025 5:30	6.3	98.9	0.0	7.6	11.7	0.0	1/22/2025 5:30	2.8	12.8	0.0	6.9	12.5	0.0	8.0
1/22/2025 5:45	4.2	36.6	0.0	7.2	12.3	0.0	1/22/2025 5:45	2.8	12.6	0.0	6.9	12.5	0.0	8.0
1/22/2025 6:00	3.2	24.2	0.0	6.8	12.7	0.0	1/22/2025 6:00	2.8	11.9	0.0	6.9	12.5	0.2	8.2
1/22/2025 6:15	5.6	95.5	0.0	7.4	12.0	0.0	1/22/2025 6:15	2.8	12.7	0.0	6.9	12.5	0.0	8.0
1/22/2025 6:30	6.1	98.6	0.0	7.5	11.7	0.0	1/22/2025 6:30	2.8	12.6	0.0	7.0	12.5	0.0	8.0
1/22/2025 6:45	6.4	101.4	0.0	7.6	11.6	0.0	1/22/2025 6:45	2.8	12.8	0.0	6.9	12.5	0.0	8.0
1/22/2025 7:00	4.4	39.6	0.0	7.2	12.2	0.0	1/22/2025 7:00	2.8	12.7	0.0	6.9	12.5	0.0	8.0
1/22/2025 7:15	3.2	24.6	0.0	6.8	12.7	0.0	1/22/2025 7:15	2.8	11.7	0.0	6.9	12.5	0.0	8.0
1/22/2025 7:30	4.7	77.0	0.0	7.3	12.2	0.0	1/22/2025 7:30	2.8	12.7	0.0	6.8	12.5	0.0	8.0
1/22/2025 7:45	3.9	43.4	0.0	7.2	12.5	3.9	1/22/2025 7:45	2.8	12.7	0.0	6.9	12.5	0.0	8.0
1/22/2025 8:00	4.1	40.4	0.0	7.2	12.3	0.0	1/22/2025 8:00	2.8	12.8	0.0	7.0	12.5	0.0	8.0
1/22/2025 8:15	3.1	23.7	0.0	6.8	12.7	0.0	1/22/2025 8:15	2.7	12.7	0.0	7.0	12.5	0.0	8.0
1/22/2025 8:30	5.7	98.1	0.0	7.5	11.9	0.0	1/22/2025 8:30	2.7	11.9	0.0	7.0	12.5	0.0	8.0
1/22/2025 8:45	6.1	99.1	0.0	7.6	11.7	0.0	1/22/2025 8:45	2.7	12.7	0.0	6.9	12.5	0.2	8.2
1/22/2025 9:00	6.2	99.3	0.0	7.6	11.7	0.0	1/22/2025 9:00	2.7	12.0	0.0	6.9	12.6	0.0	8.0
1/22/2025 9:15	5.1	62.5	0.0	7.4	12.0	0.0	1/22/2025 9:15	2.7	12.7	0.0	6.9	12.6	0.0	8.0
1/22/2025 9:30	3.3	25.6	0.0	6.9	12.7	0.0	1/22/2025 9:30	2.7	12.7	0.0	6.9	12.6	0.0	8.0
1/22/2025 9:45	2.9	22.9	0.0	6.8	12.8	0.0	1/22/2025 9:45	2.7	12.6	0.0	6.9	12.6	0.0	8.0
1/22/2025 10:00	5.9	98.6	0.0	7.5	11.8	0.0	1/22/2025 10:00	2.7	12.7	0.0	7.0	12.6	0.0	8.0
1/22/2025 10:15	5.8	90.3	0.0	7.5	11.8	0.0	1/22/2025 10:15	2.8	12.7	0.0	6.9	12.6	0.0	8.0
1/22/2025 10:30	3.8	31.0	0.0	7.1	12.5	0.0	1/22/2025 10:30	2.8	12.7	0.0	6.9	12.6	0.0	8.0
1/22/2025 10:45	3.2	23.7	0.0	6.8	12.7	0.0	1/22/2025 10:45	2.9	12.5	0.0	7.0	12.6	0.0	8.0
1/22/2025 11:00	5.5	96.1	0.0	7.4	12.0	0.0	1/22/2025 11:00	2.9	11.9	0.0	7.0	12.6	0.0	8.0
1/22/2025 11:15	6.1	100.8	0.0	7.5	11.8	0.0	1/22/2025 11:15	2.9	12.6	0.0	7.0	12.6	0.0	8.0
1/22/2025 11:30	5.7	80.1	0.0	7.5	11.8	0.0	1/22/2025 11:30	3.0	12.7	0.0	7.0	12.5	0.0	8.0
1/22/2025 11:45	3.6	26.2	0.0	6.9	12.5	0.0	1/22/2025 11:45	3.0	12.7	0.0	7.0	12.5	0.0	8.0
1/22/2025 12:00	3.3	23.0	0.0	6.8	12.7	0.0	1/22/2025 12:00	3.1	11.8	0.0	7.0	12.5	0.0	8.0
1/22/2025 12:15	3.2	22.0	0.0	6.7	12.7	0.0	1/22/2025 12:15	3.1	12.6	0.0	6.9	12.5	0.0	8.0
1/22/2025 12:30	3.2	21.4	0.0	6.7	12.7	0.0	1/22/2025 12:30	3.2	12.6	0.0	7.0	12.5	0.0	8.0
1/22/2025 12:45	3.2	21.0	0.0	6.7	12.7	0.0	1/22/2025 12:45	3.2	12.7	0.0	7.0	12.5	0.0	8.0
1/22/2025 13:00	3.2	20.7	0.0	6.7	12.7	0.0	1/22/2025 13:00		12.6	0.0	7.0	12.5	0.0	8.0
1/22/2025 13:15	5.5	97.0	0.0	7.4	12.0	0.0	1/22/2025 13:15	3.3	12.7	0.0	7.0	12.4	0.0	8.0
1/22/2025 13:30	6.1	96.2	0.0	7.5	11.7	0.0	1/22/2025 13:30	3.3	12.6	0.0	7.0	12.4	0.0	8.0
1/22/2025 13:45	4.9	51.4	0.0	7.4	12.1	0.0	1/22/2025 13:45	3.4	12.7	0.0	7.0	12.4	0.0	8.0
1/22/2025 14:00	3.7	24.0	0.0	6.9	12.5	0.0	1/22/2025 14:00	3.4	12.7	0.0	7.0	12.4	0.0	8.0
1/22/2025 14:15	3.5	22.0	0.0	6.7	12.6	0.0	1/22/2025 14:15	3.4	12.6	0.0	7.0	12.4	0.5	8.5
1/22/2025 14:30	3.4	21.3	0.0	6.7	12.6	0.0	1/22/2025 14:30	3.4	12.6	0.0	7.0	12.4	0.0	8.0
1/22/2025 14:45	6.3	105.2	0.0	7.5	11.7	0.0	1/22/2025 14:45	3.5	11.5	0.0	7.0	12.4	0.0	8.0
1/22/2025 15:00	6.5	109.0	0.1	7.6	11.6	0.0	1/22/2025 15:00	3.5	12.7	0.0	6.9	12.3	0.0	8.0
1/22/2025 15:15	6.1	88.9	0.0	7.5	11.7	0.0	1/22/2025 15:15	3.5	12.7	0.0	7.0	12.3	0.0	8.0
1/22/2025 15:30	4.1	26.8	0.0	6.9	12.4	0.0	1/22/2025 15:30	3.5	12.8	0.0	6.9	12.3	0.0	8.0
1/22/2025 15:45	3.7	23.2	0.0	6.8	12.5	0.0	1/22/2025 15:45	3.6	12.6	0.0	7.0	12.3	0.0	8.0
1/22/2025 16:00	5.5	88.0	0.0	7.4		0.0	1/22/2025 16:00	3.6	11.5	0.0	7.0	12.3	0.0	8.0
1/22/2025 16:15	6.5	108.8	0.1	7.6	11.6	0.0	1/22/2025 16:15	3.6	12.7	0.0	7.0	12.3	0.0	8.0
1/22/2025 16:30	5.5	63.3	0.0	7.4	11.8	0.0	1/22/2025 16:30	3.6	12.8	0.0	7.0	12.3	0.0	8.0
1/22/2025 16:45	4.0	25.5	0.0	6.9	12.4	0.0	1/22/2025 16:45	3.6	12.7	0.0	7.0	12.2	0.0	8.0
1/22/2025 17:00	6.2	105.0	0.0	7.5	11.7	0.0	1/22/2025 17:00	3.6	11.6	0.0	6.9	12.2	0.0	8.0
1/22/2025 17:15	6.0	87.9	0.0	7.5	11.7	0.0	1/22/2025 17:15	3.6	12.7	0.0	7.0	12.2	0.0	8.0
1/22/2025 17:30	4.2	28.0	0.0	7.0	12.3	0.0	1/22/2025 17:30	3.6	12.8	0.0	6.9	12.3	0.0	8.0
1/22/2025 17:45	6.2	102.4	0.0	7.5	11.7	0.0	1/22/2025 17:45	3.6	12.8	0.0	6.9	12.2	0.0	8.0
1/22/2025 18:00	6.7	105.7	0.0	7.6	11.6	0.0	1/22/2025 18:00	3.6	12.9	0.0	7.0	12.2	0.0	8.0
1/22/2025 18:15	6.8	106.6	0.0	7.6	11.5	0.0	1/22/2025 18:15	3.6	12.8	0.0	7.0	12.2	0.4	8.4
1/22/2025 18:30	5.2	48.5	0.0	7.3	11.9	0.0	1/22/2025 18:30	3.6	11.5	0.0	7.0	12.2	0.0	8.0
1/22/2025 18:45	4.0	25.5	0.0	6.9	12.4	0.0	1/22/2025 18:45	3.5	12.8	0.0	6.9	12.3	0.0	8.0
1/22/2025 19:00	6.4	104.6	0.0	7.5	11.6	0.0	1/22/2025 19:00	3.5	12.8	0.0	7.0	12.3	0.0	8.0
1/22/2025 19:15	4.9	48.9	0.0	7.3	12.1	0.0	1/22/2025 19:15	3.5	12.8	0.0	7.0	12.2	0.0	8.0
1/22/2025 19:30	3.8	26.2	0.0	6.9	12.5	0.4	1/22/2025 19:30	3.5	12.9	0.0	6.8	12.3	0.0	8.0

1/22/2025 19:45	6.2	93.8	0.0	7.5	11.7	0.0	1/22/2025 19:45	3.5	12.7	0.0	7.0	12.3	0.0	8.0
1/22/2025 20:00	6.6	104.7	0.0	7.6	11.6	0.0	1/22/2025 20:00	3.5	12.8	0.0	6.9	12.3	0.0	8.0
1/22/2025 20:15	6.7	105.4	0.0	7.6	11.5	0.0	1/22/2025 20:15	3.4	12.7	0.0	7.0	12.3	0.0	8.0
1/22/2025 20:30	5.5	61.5	0.0	7.4	11.8	0.0	1/22/2025 20:30	3.4	12.8	0.0	6.9	12.3	0.0	8.0
1/22/2025 20:45	3.9	26.3	0.0	6.9	12.4	0.0	1/22/2025 20:45	3.4	12.7	0.0	7.0	12.3	0.0	8.0
1/22/2025 21:00	3.6	23.6	0.0	6.8	12.5	0.0	1/22/2025 21:00	3.4	12.9	0.0	7.0	12.3	0.0	8.0
1/22/2025 21:15	3.6	28.6	0.0	6.7	12.6	0.0	1/22/2025 21:15	3.4	12.7	0.0	7.0	12.3	0.8	8.8
1/22/2025 21:30	4.7	53.7	0.0	7.3	12.1	0.0	1/22/2025 21:30	3.4	12.9	0.0	6.9	12.3	0.0	8.0
1/22/2025 21:45	6.3	101.7	0.0	7.6	11.7	0.0	1/22/2025 21:45	3.4	12.7	0.0	7.0	12.3	0.0	8.0
1/22/2025 22:00	4.9	46.5	0.0	7.3	12.0	0.0	1/22/2025 22:00	3.3	12.8	0.0	7.0	12.3	0.0	8.0
1/22/2025 22:15	3.7	24.7	0.0	6.9	12.5	0.0	1/22/2025 22:15	3.3	12.8	0.0	6.9	12.3	0.0	8.0
1/22/2025 22:30	5.5	92.9	0.0	7.3	12.0	0.0	1/22/2025 22:30	3.3	12.9	0.0	7.0	12.3	0.0	8.0
1/22/2025 22:45	6.4	99.7	0.0	7.6	11.6	0.0	1/22/2025 22:45	3.3	12.6	0.0	7.0	12.3	0.0	8.0
1/22/2025 23:00	6.6	100.3	0.0	7.6	11.6	0.0	1/22/2025 23:00	3.3	12.8	0.0	6.9	12.3	0.0	8.0
1/22/2025 23:15	5.5	61.6	0.0	7.4	11.8	0.0	1/22/2025 23:15	3.3	12.8	0.0	6.9	12.3	0.0	8.0
1/22/2025 23:30	3.8	25.8	0.0	6.9	12.5	0.0	1/22/2025 23:30	3.2	12.9	0.0	6.9	12.3	0.0	8.0
1/22/2025 23:45	3.4	23.2	0.0	6.8	12.6	0.0	1/22/2025 23:45	3.2	12.8	0.0	6.9	12.3	0.0	8.0
1/23/2025 0:00	3.3	22.3	0.0	6.7	12.6	0.0	1/23/2025 0:00	3.2	12.8	0.0	6.9	12.3	0.0	8.0
1/23/2025 0:15	5.5	90.0	0.0	7.4	11.9	0.0	1/23/2025 0:15	3.2	12.5	0.0	7.0	12.4	0.0	8.0
1/23/2025 0:30	6.4	100.4	0.0	7.6	11.6	0.0	1/23/2025 0:30	3.2	12.9	0.0	7.0	12.4	0.0	8.0
1/23/2025 0:45	4.4	45.1	0.0	7.2	12.2	0.0	1/23/2025 0:45	3.1	12.8	0.0	7.0	12.4	0.0	8.0
1/23/2025 1:00	4.1	36.1	0.0	7.2	12.3	0.0	1/23/2025 1:00	3.1	12.8	0.0	6.9	12.4	0.0	8.0
1/23/2025 1:15	3.3	23.4	0.0	6.8	12.6	0.0	1/23/2025 1:15	3.1	12.9	0.0	6.9	12.4	0.0	8.0
1/23/2025 1:30	3.1	22.1	0.0	6.7	12.7	0.0	1/23/2025 1:30	3.1	12.8	0.0	6.9	12.4	0.0	8.0
1/23/2025 1:45	5.9	99.4	0.0	7.5	11.8	2.3	1/23/2025 1:45	3.1	12.9	0.0	6.9	12.4	0.0	8.0
1/23/2025 2:00	6.5	101.9	0.0	7.6	11.6	2.1	1/23/2025 2:00	3.1	11.5	0.0	6.9	12.4	0.6	8.6
1/23/2025 2:15	6.7	102.6	0.0	7.6	11.5	2.3	1/23/2025 2:15	3.1	12.7	0.0	6.9	12.4	0.0	8.0
1/23/2025 2:30	5.8	73.0	0.0	7.5	11.7	0.0	1/23/2025 2:30	3.0	12.5	0.0	7.0	12.4	0.0	8.0
1/23/2025 2:45	3.7	26.4	0.0	6.9	12.5	0.0	1/23/2025 2:45	3.0	12.8	0.0	7.0	12.4	0.0	8.0
1/23/2025 3:00	3.6	37.1	0.0	6.8	12.7	9.7	1/23/2025 3:00	3.0	12.7	0.0	6.9	12.4	0.0	8.0
1/23/2025 3:15	6.3	100.6	0.0	7.5	11.7	0.8	1/23/2025 3:15	3.0	12.0	0.0	7.0	12.4	0.0	8.0
1/23/2025 3:30	6.6	99.6	0.0	7.6	11.5	0.8	1/23/2025 3:30	3.0	12.6	0.0	6.9	12.4	0.0	8.0
1/23/2025 3:45	3.8	28.0	0.0	7.0	12.4	0.0	1/23/2025 3:45	3.0	12.8	0.0	7.0	12.4	0.0	8.0
1/23/2025 4:00	3.2	23.6	0.0	6.8	12.6	0.0	1/23/2025 4:00	3.0	12.8	0.0	7.0	12.4	0.1	8.1
1/23/2025 4:15	3.6	48.2	0.0	7.0	12.6	0.0	1/23/2025 4:15	3.0	12.0	0.0	7.0	12.4	0.0	8.0
1/23/2025 4:30	4.0	54.1	0.0	7.1	12.5	3.8	1/23/2025 4:30	2.9	12.8	0.0	6.9	12.4	0.0	8.0
1/23/2025 4:45	6.5	103.7	0.0	7.6	11.6	0.4	1/23/2025 4:45	2.9	12.8	0.0	7.0	12.4	0.0	8.0
1/23/2025 5:00	6.7	104.0	0.0	7.6	11.5	0.4	1/23/2025 5:00	2.9	12.7	0.0	7.0	12.4	0.0	8.0
1/23/2025 5:15	4.7	44.4	0.0	7.3	12.1	0.0	1/23/2025 5:15	2.9	12.8	0.0	6.9	12.4	0.0	8.0
1/23/2025 5:30	3.5	25.9	0.0	6.9	12.5	0.0	1/23/2025 5:30	2.9	12.7	0.0	7.0	12.4	0.0	8.0
1/23/2025 5:45	5.7	85.8	0.0	7.5	11.8	0.0	1/23/2025 5:45	2.9	12.8	0.0	7.0	12.4	0.1	8.1
1/23/2025 6:00	5.1	59.6	0.0	7.4	11.8	0.0	1/23/2025 6:00	2.9	12.6	0.0	6.9	12.4	0.0	8.0
1/23/2025 6:15	3.3	25.0	0.0	6.9	12.6	0.0	1/23/2025 6:15	2.8	11.4	0.0	7.0	12.4	0.0	8.0
1/23/2025 6:30	3.0	22.9	0.0	6.8	12.7	0.0	1/23/2025 6:30	2.8	12.7	0.0	6.9	12.5	0.0	8.0
1/23/2025 6:45	4.7	81.9	0.0	7.1	12.4	0.0	1/23/2025 6:45	2.8	12.8	0.0	7.0	12.4	0.0	8.0
1/23/2025 7:00	6.5	99.5	0.0	7.6	11.6	0.0	1/23/2025 7:00	2.8	12.8	0.0	6.9	12.4	0.0	8.0
1/23/2025 7:15	6.6	99.1	0.0	7.6	11.5	0.0	1/23/2025 7:15	2.8	12.7	0.0	7.0	12.4	0.0	8.0
1/23/2025 7:30	3.9	31.0	0.0	7.1	12.3	0.0	1/23/2025 7:30	2.8	12.8	0.0	7.0	12.4	0.0	8.0
1/23/2025 7:45	3.2	24.0	0.0	6.8	12.6	0.0	1/23/2025 7:45	2.8	12.7	0.0	6.9	12.4	0.0	8.0
1/23/2025 8:00	5.1	79.3	0.0	7.4	12.0	0.0	1/23/2025 8:00	2.7	12.8	0.0	7.0	12.5	0.0	8.0
1/23/2025 8:15	3.4	26.9	0.0	7.0	12.5	0.0	1/23/2025 8:15	2.7	12.8	0.0	6.9	12.4	0.0	8.0
1/23/2025 8:30	5.9	95.9	0.0	7.5	11.8	0.0	1/23/2025 8:30	2.7	12.0	0.0	7.0	12.5	0.0	8.0
1/23/2025 8:45	6.4	96.8	0.0	7.6	11.6	0.0	1/23/2025 8:45	2.7	12.7	0.0	7.0	12.5	0.0	8.0
1/23/2025 9:00	6.5	96.8	0.0	7.6	11.5	0.0	1/23/2025 9:00	2.7	12.8	0.0	6.9	12.5	0.0	8.0
1/23/2025 9:15	5.0	52.6	0.0	7.4	11.9	0.0	1/23/2025 9:15	2.7	12.9	0.0	7.0	12.5	0.3	8.3
1/23/2025 9:30	3.3	25.4	0.0	6.9	12.6	0.0	1/23/2025 9:30	2.7	12.8	0.0	6.9	12.5	0.0	8.0
1/23/2025 9:45	3.0	23.1	0.0	6.8	12.7	0.0	1/23/2025 9:45	2.7	12.6	0.0	6.9	12.5	0.0	8.0
1/23/2025 10:00	2.8	22.2	0.0	6.7	12.8	0.0	1/23/2025 10:00	2.7	12.8	0.0	7.0	12.5	0.0	8.0
1/23/2025 10:15	2.8	21.6	0.0	6.7	12.8	0.0	1/23/2025 10:15	2.8	12.7	0.0	7.0	12.5	0.0	8.0
1/23/2025 10:30	5.2	79.7	0.0	7.4	12.0	0.0	1/23/2025 10:30	2.8	12.7	0.0	6.9	12.5	0.1	8.1
1/23/2025 10:45	5.2	67.3	0.0	7.4	11.9	0.0	1/23/2025 10:45	2.9	12.6	0.0	7.0	12.5	0.0	8.0
1/23/2025 11:00	3.5	27.9	0.0	7.0	12.5	0.0	1/23/2025 11:00	2.9	11.5	0.0	6.9	12.5	0.0	8.0
1/23/2025 11:15	5.5	94.0	0.0	7.4	11.9	0.0	1/23/2025 11:15	2.9	12.8	0.0	6.9	12.5	0.0	8.0
1/23/2025 11:30	6.5	102.3	0.0	7.6	11.6	0.0	1/23/2025 11:30	3.0	12.7	0.0	7.0	12.5	0.0	8.0
1/23/2025 11:45	6.7	103.4	0.0	7.6	11.5	1.5	1/23/2025 11:45	3.0	12.8	0.0	7.0	12.4	0.0	8.0
1/23/2025 12:00	4.2	31.7	0.0	7.1	12.2	0.0	1/23/2025 12:00	3.0	12.5	0.0	7.0	12.4	0.0	8.0
1/23/2025 12:15	3.5	24.0	0.0	6.8	12.5	0.0	1/23/2025 12:15	3.1	11.6	0.0	7.0	12.4	0.0	8.0
1/23/2025 12:30	5.7	90.8	0.0	7.4	11.9	0.0	1/23/2025 12:30	3.1	12.7	0.0	7.0	12.4	0.0	8.0
1/23/2025 12:45	6.8	105.2	0.0	7.6	11.5	0.0	1/23/2025 12:45	3.2	11.5	0.0	7.0	12.4	0.0	8.0
1/23/2025 13:00	4.7	38.5	0.0	7.2	12.0	0.0	1/23/2025 13:00	3.2	12.7	0.0	7.0	12.4	0.0	8.0
1/23/2025 13:15	3.7	24.6	0.0	6.8	12.4	0.0	1/23/2025 13:15	3.2	11.5	0.0	7.0	12.4	0.0	8.0
1/23/2025 13:30	6.2	101.8	0.0	7.5	11.7	0.0	1/23/2025 13:30	3.2	12.8	0.0	7.0	12.3	0.0	8.0
1/23/2025 13:45	6.5	95.5	0.0	7.6	11.5	0.0	1/23/2025 13:45	3.2	12.8	0.0	6.9	12.3	0.0	8.0
1/23/2025 14:00	4.3	35.0	0.0	7.1	12.2	0.0	1/23/2025 14:00	3.3	11.5	0.0	7.0	12.3	0.0	8.0
1/23/2025 14:15	4.9	72.7	0.0	7.1	12.3	0.0	1/23/2025 14:15	3.3	12.8	0.0	7.0	12.3	0.0	8.0
1/23/2025 14:30	6.2	90.8	0.0	7.5	11.6	0.0	1/23/2025 14:30	3.4	12.7	0.0	6.9	12.3	0.0	8.0
1/23/2025 14:45	6.9	109.2	0.1	7.6	11.4	0.7	1/23/2025 14:45	3.4	12.8	0.0	7.0	12.2	0.0	8.0
1/23/2025 15:00	5.6	54.8	0.0	7.4	11.7	0.0	1/23/2025 15:00	3.4	12.6	0.0	6.9	12.3	0.0	8.0
1/23/2025 15:15	4.0	26.0	0.0	6.9	12.3	0.0	1/23/2025 15:15	3.5	11.6	0.0	7.0	12.3	0.0	8.0
1/23/2025 15:30	4.2	41.4	0.0	7.0	12.2	0.0	1/23/2025 15:30	3.5	12.8	0.0	6.9	12.3	0.0	8.0
1/23/2025 15:45	6.5	104.8	0.0	7.5	11.5	0.2	1/23/2025 15:45	3.5	12.7	0.0	7.0	12.2	0.0	8.0
1/23/2025 16:00	6.9	100.9	0.0	7.6	11.4	2.2	1/23/2025 16:00	3.5	12.8	0.0	7.0	12.2	0.0	8.0
1/23/2025 16:15	7.1	106.0	0.0	7.6	11.4	2.4	1/23/2025 16:15	3.5	12.7	0.0	7.0	12.2	0.0	8.0
1/23/2025 16:30	6.6	89.8	0.0	7.5	11.4	4.4	1/23/2025 16:30	3.5	12.8	0.0	7.0	12.2	0.2	8.2
1/23/2025 16:45	4.3	28.1	0.0	7.0	12.2	0.0	1/23/2025 16:45	3.5	12.8	0.0	7.0	12.2	0.0	8.0
1/23/2025 17:00	4.5	54.6	0.0	7.2	12.1	0.0	1/23/2025 17:00	3.5	12.8	0.0	7.0	12.2	0.0	8.0
1/23/2025 17:15	5.0	63.6	0.0	7.2	12.2	6.3	1/23/2025 17:15	3.5	12.6	0.0	7.0	12.2	0.0	8.0
1/23/2025 17:30	5.4	59.7	0.0	7.4	11.7	1.8	1/23/2025 17:30	3.5	12.8	0.0	7.0	12.2	0.0	8.0
1/23/2025 17:45	7.2	109.6	0.1	7.6	11.3	5.3	1/23/2025 17:45	3.4	12.8	0.0	7.0	12.2	0.0	8.0
1/23/2025 18:00	7.3	110.5	0.1	7.6	11.3	6.8	1/23/2025 18:00	3.4	12.9	0.0	7.0	12.2	0.0	8.0
1/23/2025 18:15	4.8	35.5	0.0	7.2	12.0	0.0	1/23/2025 18:15	3.4	12.8	0.0	7.0	12.2	1.5	9.5
1/23/2025 18:30	3.9	25.3	0.0	6.9	12.3	0.0	1/23/2025 18:30	3.4	12.9	0.0	7.0	12.2	0.0	8.0
1/23/2025 18:45	3.6	23.4	0.0	6.8	12.4	0.0	1/23/2025 18:45	3.3	12.7	0.0	7.0	12.2	0.0	8.0
1/23/2025 19:00	3.4	22.6	0.0	6.7	12.5	0.0	1/23/2025 19:00	3.3	12.9	0.0	6.9	12.2	0.0	8.0
1/23/2025 19:15	4.5	73.8	0.0	7.0	12.3	0.2	1/23/2025 19:15	3.3	12.8	0.0	7.0	12.2	0.1	8.1
1/23/2025 19:30	6.0	90.2	0.0	7.5	11.6	0.8	1/23/2025 19:30	3.3	12.1	0.0	7.0	12.2	0.0	8.0
1/23/2025 19:45	7.0	110.5	0.1	7.6	11.4	0.4	1/23/2025 19:45	3.2	12.7	0.0	6.9	12.2	0.0	8.0
1/23/2025 20:00	7.2	110.7	0.1	7.6	11.3	0.0	1/23/2025 20:00	3.2	12.9	0.0	6.9	12.2	0.0	8.0
1/23/2025 20:15	7.0	104.9	0.0	7.6	11.3	0.0	1/23/2025 20:15	3.2	12.8	0.0	6.9	12.2	0.0	8.0
1/23/2025 20:30	4.2	30.3	0.0	7.1	12.2	0.0	1/23/2025 20:30	3.2	12.9	0.0	6.9	12.2	0.0	8.0
1/23/2025 20:45	3.6	24.7	0.0	6.9	12.4	0.0	1/23/2025 20:45	3.2	12.6	0.0	7.0	12.2	0.0	8.0
1/23/2025 21:00	3.3	23.2	0.0	6.8		0.0	1/23/2025 21:00	3.2	12.9	0.0	6.9	12.3	0.0	8.0
1/23/2025 21:15	5.7	87.8	0.0	7.5	11.6	0.0	1/23/2025 21:15	3.1	12.7	0.0	7.0	12.3	0.0	8.0
1/23/2025 21:30	4.1	44.7	0.0	7.2	12.3	0.0	1/23/2025 21:30	3.1	12.8	0.0	7.0	12.3	0.0	8.0
1/23/2025 21:45	6.5	106.6	0.0	7.6	11.5	0.0	1/23/2025 21:45	3.1	12.7	0.0	7.0	12.3	0.0	8.0
1/23/2025 22:00	4.6	41.7	0.0	7.3	12.0	0.0	1/23/2025 22:00	3.1	12.9	0.0	7.0	12.3	0.0	8.0
1/23/2025 22:15	3.4	24.7	0.0	6.8	12.5	0.0	1/23/2025 22:15	3.0	12.7	0.0	7.0	12.3	0.0	8.0
1/23/2025 22:30	3.2	22.9	0.0	6.8	12.6	0.0	1/23/2025 22:30	3.0	12.9	0.0	7.0	12.3	0.0	8.0
1/23/2025 22:45	5.9	98.6	0.0	7.5	11.7	0.0	1/23/2025 22:45	3.0	12.7	0.0	7.0	12.3	0.0	8.0
1/23/2025 23:00	3.9	31.9	0.0	7.1	12.3	0.0	1/23/2025 23:00	3.0	12.9	0.0	7.0	12.3	0.0	8.0
1/23/2025 23:15	6.1	106.3	0.0	7.5	11.6	0.0	1/23/2025 23:15	2.9	12.8	0.0	7.0	12.3	0.3	8.3
1/23/2025 23:30	6.6	108.7	0.1	7.6	11.5	0.0	1/23/2025 23:30	2.9	12.9	0.0	6.9	12.3	0.0	8.0
1/23/2025 23:45	5.4	66.0	0.0	7.5	11.8	0.0	1/23/2025 23:45	2.9	12.8	0.0	7.0	12.3	0.0	8.0
1/24/2025 0:00	3.5	26.7	0.0	7.0	12.4	0.0	1/24/2025 0:00	2.9	12.9	0.0	6.9	12.3	0.0	8.0
1/24/2025 0:15	3.1	23.6	0.0	6.8	12.6	0.0	1/24/2025 0:15	2.9	12.6	0.0	7.0	12.3	0.0	8.0
1/24/2025 0:30	3.0	22.5	0.0	6.8	12.6	0.0	1/24/2025 0:30	2.9	12.8	0.0	7.0	12.4	0.0	8.0
1/24/2025 0:45	2.9	21.9	0.0	6.7	12.7	0.0	1/24/2025 0:45	2.9	12.8	0.0	7.0	12.4	0.0	8.0
1/24/2025 1:00	4.7	85.8	0.0	7.4	12.1	0.0	1/24/2025 1:00	2.8	12.8	0.0	7.0	12.4	0.0	8.0
1/24/2025 1:15	6.1	107.3	0.0	7.6	11.6	0.0	1/24/2025 1:15	2.8	12.7	0.0	6.9	12.4	0.0	8.0
1/24/2025 1:30	6.3	108.5	0.0	7.6	11.6	0.0	1/24/2025 1:30	2.8	12.8	0.0	7.0	12.4	0.0	8.0
1/24/2025 1:45	6.4	109.3	0.1	7.6	11.5	0.0	1/24/2025 1:45	2.8	12.8	0.0	6.9	12.4	0.0	8.0
1/24/2025 2:00	6.0	95.5	0.0	7.6	11.6	0.0	1/24/2025 2:00	2.8	12.1	0.0	7.0	12.4	0.0	8.0
1/24/2025 2:15	3.7	29.3	0.0	7.0	12.4	0.0	1/24/2025 2:15	2.8	12.7	0.0	7.0	12.4	0.0	8.0
1/24/2025 2:30	3.1	24.4	0.0	6.8	12.6	0.0	1/24/2025 2:30	2.8	11.9	0.0	7.0	12.4	0.0	8.0
1/24/2025 2:45	3.5	44.2	0.0	7.1	12.5	0.0	1/24/2025 2:45	2.8	12.9	0.0	7.0	12.4	0.0	8.0
1/24/2025 3:00	6.0	107.1	0.0	7.6	11.7	0.0	1/24/2025 3:00	2.8	12.8	0.0	6.9	12.4	0.0	8.0
1/24/2025 3:15	4.1	37.7	0.0	7.2	12.2	0.0	1/24/2025 3:15	2.8	12.8	0.0	7.0	12.4	0.0	8.0
1/24/2025 3:30	3.1	24.7	0.0	6.8	12.6	0.0	1/24/2025 3:30	2.7	12.0	0.0	6.9	12.4	0.0	8.0
1/24/2025 3:45	3.9	66.4	0.0	7.0	12.6	0.0	1/24/2025 3:45	2.7	12.6	0.0	7.0	12.4	0.3	8.3
1/24/2025 4:00	5.6	93.4	0.0	7.5	11.8	0.0	1/24/2025 4:00	2.7	11.7	0.0	7.0	12.4	0.0	8.0
1/24/2025 4:15	6.3	107.5	0.0	7.6	11.6	0.0	1/24/2025 4:15	2.7	12.8	0.0	6.9	12.4	0.0	8.0
1/24/2025 4:30	4.0	35.2	0.0	7.2	12.3	0.0	1/24/2025 4:30	2.7	12.7	0.0	7.0	12.4	0.0	8.0
1/24/2025 4:45	3.1	24.8	0.0	6.8	12.6	0.0	1/24/2025 4:45	2.6	11.8	0.0	7.0	12.4	0.0	8.0
1/24/2025 5:00	5.6	104.0	0.0	7.5	11.8	0.0	1/24/2025 5:00	2.6	12.9	0.0	6.9	12.5	0.0	8.0
1/24/2025 5:15	6.3	107.6	0.0	7.6	11.6	0.0	1/24/2025 5:15	2.6	12.8	0.0	6.8	12.5	0.0	8.0
1/24/2025 5:30	6.0	94.6	0.0	7.6	11.6	0.0	1/24/2025 5:30	2.6	12.8	0.0	6.9	12.4	0.0	8.0
1/24/2025 5:45	3.5	28.9	0.0	7.0	12.4	0.0	1/24/2025 5:45	2.6	12.7	0.0	7.0	12.4	0.0	8.0
1/24/2025 6:00	2.9	24.3	0.0	6.8	12.7	0.0	1/24/2025 6:00	2.6	11.6	0.0	6.9	12.5	0.0	8.0

1/24/2025 6:15	5.7	104.1	0.0	7.5	11.8	0.0	1/24/2025 6:15	2.6	12.8	0.0	7.0	12.5	1.1	9.1
1/24/2025 6:30	3.8	46.4	0.0	7.2	12.3	0.0	1/24/2025 6:30	2.6	11.8	0.0	7.0	12.4	0.0	8.0
1/24/2025 6:45	3.2	28.7	0.0	7.0	12.6	0.0	1/24/2025 6:45	2.6	12.8	0.0	6.9	12.5	0.0	8.0
1/24/2025 7:00	2.7	23.3	0.0	6.8	12.7	0.0	1/24/2025 7:00	2.6	12.9	0.0	7.0	12.4	0.0	8.0
1/24/2025 7:15	2.6	22.2	0.0	6.7	12.8	0.0	1/24/2025 7:15	2.6	12.8	0.0	6.8	12.4	0.0	8.0
1/24/2025 7:30	2.5	21.7	0.0	6.7	12.8	0.0	1/24/2025 7:30	2.6	12.8	0.0	7.0	12.4	0.0	8.0
1/24/2025 7:45	4.6	87.5	0.0	7.4	12.1	0.0	1/24/2025 7:45	2.6	12.7	0.0	7.0	12.4	0.0	8.0
1/24/2025 8:00	5.8	105.6	0.0	7.6	11.7	0.0	1/24/2025 8:00	2.5	12.8	0.0	6.9	12.5	0.0	8.0
1/24/2025 8:15	3.8	37.8	0.0	7.2	12.3	0.0	1/24/2025 8:15	2.5	12.8	0.0	6.9	12.5	0.0	8.0
1/24/2025 8:30	2.8	24.2	0.0	6.8	12.7	0.0	1/24/2025 8:30	2.5	12.0	0.0	6.9	12.5	0.0	8.0
1/24/2025 8:45	2.6	22.5	0.0	6.7	12.8	0.0	1/24/2025 8:45	2.5	12.6	0.0	7.0	12.5	0.0	8.0
1/24/2025 9:00	5.8	105.5	0.0	7.6	11.7	0.0	1/24/2025 9:00	2.5	12.8	0.0	6.9	12.5	0.0	8.0
1/24/2025 9:15	6.1	106.1	0.0	7.6	11.6	0.0	1/24/2025 9:15	2.5	12.6	0.0	7.0	12.5	0.0	8.0
1/24/2025 9:30	4.0	40.1	0.0	7.3	12.2	0.0	1/24/2025 9:30	2.5	12.8	0.0	7.0	12.5	0.1	8.1
1/24/2025 9:45	2.9	24.8	0.0	6.9	12.7	0.0	1/24/2025 9:45	2.5	12.7	0.0	7.0	12.5	0.0	8.0
1/24/2025 10:00	2.9	33.2	0.0	6.8	12.8	0.0	1/24/2025 10:00	2.6	12.8	0.0	7.0	12.5	0.0	8.0
1/24/2025 10:15	5.6	102.7	0.0	7.6	11.8	0.0	1/24/2025 10:15	2.6	12.7	0.0	7.0	12.5	0.0	8.0
1/24/2025 10:30	6.1	106.2	0.0	7.6	11.7	0.0	1/24/2025 10:30	2.7	12.8	0.0	7.0	12.5	0.1	8.1
1/24/2025 10:45	4.7	52.5	0.0	7.4	12.0	0.0	1/24/2025 10:45	2.8	12.7	0.0	7.0	12.5	0.0	8.0
1/24/2025 11:00	3.2	25.9	0.0	6.9	12.6	0.0	1/24/2025 11:00	2.8	12.8	0.0	7.0	12.5	1.2	9.2
1/24/2025 11:15	3.0	23.4	0.0	6.8	12.7	0.0	1/24/2025 11:15	2.9	12.5	0.0	7.0	12.4	0.0	8.0
1/24/2025 11:30	5.2	97.9	0.0	7.4	12.0	0.0	1/24/2025 11:30	3.0	12.8	0.0	7.0	12.4	0.0	8.0
1/24/2025 11:45	6.3	106.6	0.0	7.6	11.6	0.0	1/24/2025 11:45	3.0	12.6	0.0	7.0	12.4	0.5	8.5
1/24/2025 12:00	6.3	101.4	0.0	7.6	11.5	0.0	1/24/2025 12:00	3.1	12.8	0.0	7.0	12.4	0.0	8.0
1/24/2025 12:15	4.0	29.5	0.0	7.1	12.3	0.0	1/24/2025 12:15	3.2	12.8	0.0	7.0	12.4	0.0	8.0
1/24/2025 12:30	3.5	24.0	0.0	6.8	12.5	0.0	1/24/2025 12:30	3.2	12.8	0.0	7.0	12.4	0.0	8.0
1/24/2025 12:45	3.4	22.6	0.0	6.8	12.5	0.0	1/24/2025 12:45	3.3	12.7	0.0	7.0	12.3	0.0	8.0
1/24/2025 13:00	3.4	21.9	0.0	6.8	12.5	0.0	1/24/2025 13:00	3.4	12.8	0.0	7.0	12.3	0.0	8.0
1/24/2025 13:15	5.5	82.6	0.0	7.5	11.8	0.0	1/24/2025 13:15	3.5	12.6	0.0	7.0	12.2	0.0	8.0
1/24/2025 13:30	4.5	42.9	0.0	7.2	12.1	0.0	1/24/2025 13:30	3.6	12.8	0.0	7.0	12.2	1.2	9.2
1/24/2025 13:45	3.8	23.5	0.0	6.8	12.4	0.0	1/24/2025 13:45	3.6	12.7	0.0	6.9	12.2	0.0	8.0
1/24/2025 14:00	3.7	22.0	0.0	6.7	12.4	0.0	1/24/2025 14:00	3.7	12.8	0.0	7.0	12.2	0.0	8.0
1/24/2025 14:15	6.4	105.8	0.0	7.5	11.5	0.0	1/24/2025 14:15	3.8	12.7	0.0	7.0	12.1	0.0	8.0
1/24/2025 14:30	7.0	107.8	0.0	7.6	11.3	0.0	1/24/2025 14:30	3.8	12.8	0.0	6.9	12.1	0.0	8.0
1/24/2025 14:45	5.7	53.1	0.0	7.4	11.7	0.0	1/24/2025 14:45	3.8	12.8	0.0	7.1	12.1	0.0	8.0
1/24/2025 15:00	4.4	25.3	0.0	6.9	12.2	0.0	1/24/2025 15:00	3.9	12.8	0.0	7.0	12.1	0.0	8.0
1/24/2025 15:15	4.1	23.0	0.0	6.8	12.3	0.0	1/24/2025 15:15	3.9	12.9	0.0	7.0	12.1	0.0	8.0
1/24/2025 15:30	4.0	22.0	0.0	6.8	12.3	0.0	1/24/2025 15:30	3.9	12.8	0.0	6.9	12.1	0.0	8.0
1/24/2025 15:45	5.4	78.6	0.0	7.1	12.1	0.0	1/24/2025 15:45	3.9	12.8	0.0	7.0	12.1	0.0	8.0
1/24/2025 16:00	7.2	106.7	0.0	7.6	11.3	0.0	1/24/2025 16:00	3.9	12.8	0.0	7.0	12.1	1.2	9.2
1/24/2025 16:15	6.7	81.8	0.0	7.6	11.4	0.0	1/24/2025 16:15	3.9	12.8	0.0	7.0	12.1	0.0	8.0
1/24/2025 16:30	4.6	27.0	0.0	7.0	12.1	0.0	1/24/2025 16:30	3.8	12.7	0.0	7.0	12.1	0.0	8.0
1/24/2025 16:45	4.1	23.4	0.0	6.8	12.2	0.0	1/24/2025 16:45	3.8	12.8	0.0	7.0	12.1	0.0	8.0
1/24/2025 17:00	3.9	22.3	0.0	6.8	12.3	0.0	1/24/2025 17:00	3.7	12.6	0.0	7.0	12.1	0.0	8.0
1/24/2025 17:15	6.7	98.7	0.0	7.6	11.4	0.0	1/24/2025 17:15	3.7	12.9	0.0	6.9	12.1	0.0	8.0
1/24/2025 17:30	7.1	105.7	0.0	7.6	11.3	0.0	1/24/2025 17:30	3.6	12.6	0.0	7.0	12.1	0.0	8.0
1/24/2025 17:45	5.5	48.0	0.0	7.4	11.8	0.0	1/24/2025 17:45	3.6	13.0	0.0	7.0	12.2	0.0	8.0
1/24/2025 18:00	4.1	25.3	0.0	6.9	12.2	0.0	1/24/2025 18:00	3.6	13.0	0.0	7.0	12.2	0.0	8.0
1/24/2025 18:15	5.9	87.5	0.0	7.5	11.7	0.0	1/24/2025 18:15	3.5	13.0	0.0	7.0	12.2	0.0	8.0
1/24/2025 18:30	4.5	44.1	0.0	7.2	12.1	0.0	1/24/2025 18:30	3.5	12.9	0.0	7.0	12.1	0.0	8.0
1/24/2025 18:45	6.7	104.6	0.0	7.6	11.4	0.0	1/24/2025 18:45	3.5	12.9	0.0	7.0	12.2	0.0	8.0
1/24/2025 19:00	7.0	106.6	0.0	7.6	11.3	0.0	1/24/2025 19:00	3.4	12.9	0.0	6.9	12.2	0.0	8.0
1/24/2025 19:15	7.1	106.9	0.0	7.6	11.3	0.0	1/24/2025 19:15	3.4	13.0	0.0	7.0	12.2	0.0	8.0
1/24/2025 19:30	5.8	63.0	0.0	7.4	11.7	0.0	1/24/2025 19:30	3.4	12.9	0.0	7.0	12.2	0.0	8.0
1/24/2025 19:45	4.1	27.0	0.0	6.9	12.3	0.0	1/24/2025 19:45	3.4	12.9	0.0	7.0	12.2	0.0	8.0
1/24/2025 20:00	3.9	33.6	0.0	6.8	12.4	0.0	1/24/2025 20:00	3.3	12.9	0.0	7.0	12.2	0.0	8.0
1/24/2025 20:15	6.5	103.6	0.0	7.6	11.5	0.0	1/24/2025 20:15	3.3	12.9	0.0	7.0	12.2	0.0	8.0
1/24/2025 20:30	5.9	75.0	0.0	7.5	11.6	0.0	1/24/2025 20:30	3.3	12.8	0.0	7.0	12.2	0.0	8.0
1/24/2025 20:45	4.0	27.1	0.0	6.9	12.3	0.0	1/24/2025 20:45	3.3	12.9	0.0	7.0	12.2	0.0	8.0
1/24/2025 21:00	3.5	23.8	0.0	6.8	12.4	0.0	1/24/2025 21:00	3.2	12.8	0.0	7.0	12.2	0.0	8.0
1/24/2025 21:15	4.0	43.3	0.0	7.2	12.2	0.0	1/24/2025 21:15	3.2	12.9	0.0	7.0	12.2	0.0	8.0
1/24/2025 21:30	6.1	94.2	0.0	7.5	11.6	0.0	1/24/2025 21:30	3.2	12.8	0.0	6.9	12.3	0.0	8.0
1/24/2025 21:45	6.5	105.7	0.0	7.6	11.5	0.0	1/24/2025 21:45	3.2	12.3	0.0	7.0	12.3	0.0	8.0
1/24/2025 22:00	5.1	57.5	0.0	7.4		0.0	1/24/2025 22:00	3.2	12.8	0.0	7.0	12.3	0.0	8.0
1/24/2025 22:15	5.9	99.1	0.0	7.5	11.8	0.0	1/24/2025 22:15	3.1	11.6	0.0	7.0	12.3	0.0	8.0
1/24/2025 22:30	4.2	33.0	0.0	7.2	12.2	0.0	1/24/2025 22:30	3.1	12.9	0.0	6.9	12.3	0.0	8.0
1/24/2025 22:45	3.5	24.6	0.0	6.8	12.5	0.0	1/24/2025 22:45	3.1	12.7	0.0	7.0	12.3	0.0	8.0
1/24/2025 23:00	6.2	106.3	0.0	7.6	11.6	0.0	1/24/2025 23:00	3.1	12.9	0.0	6.9	12.3	0.0	8.0
1/24/2025 23:15	6.4	105.3	0.0	7.6	11.5	0.0	1/24/2025 23:15	3.1	12.9	0.0	7.0	12.3	0.0	8.0
1/24/2025 23:30	4.0	30.7	0.0	7.1	12.3	0.0	1/24/2025 23:30	3.0	11.7	0.0	7.0	12.3	0.0	8.0
1/24/2025 23:45	5.1	84.4	0.0	7.4	12.0	0.0	1/24/2025 23:45	3.0	12.8	0.0	7.0	12.3	0.0	8.0
1/25/2025 0:00	6.3	106.7	0.0	7.6	11.6	0.0	1/25/2025 0:00	3.0	11.6	0.0	7.0	12.3	0.0	8.0
1/25/2025 0:15	5.8	83.0	0.0	7.5	11.6	0.0	1/25/2025 0:15	3.0	12.9	0.0	7.0	12.3	0.0	8.0
1/25/2025 0:30	3.7	28.0	0.0	7.0	12.4	0.0	1/25/2025 0:30	3.0	11.6	0.0	7.0	12.4	0.0	8.0
1/25/2025 0:45	3.3	24.3	0.0	6.8	12.6	0.0	1/25/2025 0:45	2.9	12.8	0.0	6.9	12.3	0.0	8.0
1/25/2025 1:00	6.1	107.8	0.0	7.6	11.6	0.0	1/25/2025 1:00	2.9	12.9	0.0	7.0	12.3	0.0	8.0
1/25/2025 1:15	6.4	109.8	0.1	7.6	11.6	0.0	1/25/2025 1:15	2.9	11.6	0.0	7.0	12.4	0.0	8.0
1/25/2025 1:30	4.0	33.5	0.0	7.2	12.2	0.0	1/25/2025 1:30	2.9	12.9	0.0	6.9	12.4	0.1	8.1
1/25/2025 1:45	3.3	25.1	0.0	6.9	12.5	0.0	1/25/2025 1:45	2.9	11.6	0.0	7.0	12.4	0.0	8.0
1/25/2025 2:00	3.1	23.3	0.0	6.8		0.0	1/25/2025 2:00	2.9	12.9	0.0	6.9	12.4	0.0	8.0
1/25/2025 2:15	3.0	22.5	0.0	6.7	12.7	0.0	1/25/2025 2:15	2.9	11.7	0.0	7.0	12.4	0.0	8.0
1/25/2025 2:30	3.5	44.1	0.0	7.1	12.5	0.0	1/25/2025 2:30	2.8	12.9	0.0	6.9	12.4	0.0	8.0
1/25/2025 2:45	6.2	108.5	0.0	7.6	11.6	1.3	1/25/2025 2:45	2.8	12.8	0.0	7.0	12.4	0.3	8.3
1/25/2025 3:00	6.5	109.2	0.1	7.6	11.5	2.3	1/25/2025 3:00	2.8	12.9	0.0	7.0	12.4	0.0	8.0
1/25/2025 3:15	4.7	48.8	0.0	7.4	12.0	0.0	1/25/2025 3:15	2.8	12.8	0.0	7.0	12.4	0.0	8.0
1/25/2025 3:30	3.4	25.9	0.0	6.9	12.5	0.0	1/25/2025 3:30	2.8	12.9	0.0	6.9	12.4	0.0	8.0
1/25/2025 3:45	4.7	83.7	0.0	7.3	12.2	1.0	1/25/2025 3:45	2.8	12.7	0.0	7.0	12.4	0.0	8.0
1/25/2025 4:00	6.3	107.6	0.0	7.6	11.6	2.9	1/25/2025 4:00	2.8	12.9	0.0	6.9	12.4	0.0	8.0
1/25/2025 4:15	4.7	48.6	0.0	7.4	12.0	0.0	1/25/2025 4:15	2.7	12.8	0.0	7.0	12.4	0.0	8.0
1/25/2025 4:30	3.3	25.6	0.0	6.9	12.6	0.0	1/25/2025 4:30	2.7	12.1	0.0	7.0	12.4	0.0	8.0
1/25/2025 4:45	2.9	23.4	0.0	6.8	12.6	0.0	1/25/2025 4:45	2.7	12.8	0.0	6.9	12.4	0.0	8.0
1/25/2025 5:00	3.4	31.0	0.0	7.1	12.5	0.0	1/25/2025 5:00	2.7	12.8	0.0	7.0	12.4	0.0	8.0
1/25/2025 5:15	4.6	87.3	0.0	7.2	12.3	0.0	1/25/2025 5:15	2.7	12.9	0.0	6.9	12.4	0.0	8.0
1/25/2025 5:30	6.2	108.9	0.1	7.6	11.6	1.7	1/25/2025 5:30	2.7	12.8	0.0	7.0	12.4	0.0	8.0
1/25/2025 5:45	6.1	106.7	0.0	7.6	11.6	1.0	1/25/2025 5:45	2.7	12.9	0.0	6.9	12.4	0.0	8.0
1/25/2025 6:00	6.4	109.4	0.1	7.6	11.5	0.0	1/25/2025 6:00	2.6	12.9	0.0	7.0	12.4	0.0	8.0
1/25/2025 6:15	4.8	54.2	0.0	7.4	11.9	0.0	1/25/2025 6:15	2.6	12.9	0.0	6.9	12.4	0.0	8.0
1/25/2025 6:30	3.3	27.8	0.0	6.9	12.5	0.0	1/25/2025 6:30	2.6	12.8	0.0	7.0	12.4	0.2	8.2
1/25/2025 6:45	3.6	44.2	0.0	7.2	12.4	0.0	1/25/2025 6:45	2.6	12.9	0.0	7.0	12.4	0.0	8.0
1/25/2025 7:00	3.3	31.3	0.0	7.1	12.5	0.0	1/25/2025 7:00	2.6	12.8	0.0	6.8	12.5	0.0	8.0
1/25/2025 7:15	2.8	23.4	0.0	6.8	12.7	0.0	1/25/2025 7:15	2.6	11.7	0.0	7.0	12.5	0.0	8.0
1/25/2025 7:30	2.7	22.9	0.0	6.7	12.8	0.0	1/25/2025 7:30	2.6	11.2	0.0	7.0	12.5	0.0	8.0
1/25/2025 7:45	5.8	101.8	0.0	7.5	11.7	0.0	1/25/2025 7:45	2.6	12.9	0.0	7.0	12.5	0.0	8.0
1/25/2025 8:00	5.5	78.0	0.0	7.5	11.7	0.0	1/25/2025 8:00	2.6	12.9	0.0	7.0	12.4	0.0	8.0
1/25/2025 8:15	3.3	26.8	0.0	6.9	12.5	0.0	1/25/2025 8:15	2.6	12.8	0.0	7.0	12.5	0.0	8.0
1/25/2025 8:30	2.8	23.5	0.0	6.8	12.7	0.0	1/25/2025 8:30	2.5	12.6	0.0	6.9	12.5	0.0	8.0
1/25/2025 8:45	6.1	105.2	0.0	7.6	11.6	0.0	1/25/2025 8:45	2.5	12.9	0.0	7.0	12.5	0.0	8.0
1/25/2025 9:00	6.3	106.5	0.0	7.6		0.0	1/25/2025 9:00	2.5	12.6	0.0	7.0	12.5	0.0	8.0
1/25/2025 9:15	3.8	32.9	0.0	7.2	12.3	0.0	1/25/2025 9:15	2.5	12.8	0.0	7.0	12.5	0.0	8.0
1/25/2025 9:30	3.0	24.9	0.0	6.9	12.7	0.0	1/25/2025 9:30	2.5	12.7	0.0	7.0	12.5	0.0	8.0
1/25/2025 9:45	5.8	104.9	0.0	7.5	11.7	0.0	1/25/2025 9:45	2.5	12.9	0.0	7.0	12.5	0.0	8.0
1/25/2025 10:00	6.0	98.7	0.0	7.6	11.6	0.0	1/25/2025 10:00	2.5	12.7	0.0	7.0	12.5	0.0	8.0
1/25/2025 10:15	4.3	45.1	0.0	7.3	12.1	0.0	1/25/2025 10:15	2.6	11.9	0.0	7.0	12.6	0.0	8.0
1/25/2025 10:30	3.1	25.4	0.0	6.9	12.6	0.0	1/25/2025 10:30	2.6	12.7	0.0	7.0	12.5	0.5	8.5
1/25/2025 10:45	2.8	23.4	0.0	6.8	12.7	0.0	1/25/2025 10:45	2.7	12.8	0.0	7.0	12.5	0.7	8.7
1/25/2025 11:00	2.7	22.4	0.0	6.7	12.7	0.0	1/25/2025 11:00	2.8	12.7	0.0	7.0	12.5	0.0	8.0
1/25/2025 11:15	6.1	106.1	0.0	7.6	11.7	0.0	1/25/2025 11:15	2.8	12.8	0.0	6.9	12.5	0.0	8.0
1/25/2025 11:30	6.5	107.7	0.0	7.6	11.5	0.0	1/25/2025 11:30	2.9	12.8	0.0	7.0	12.5	0.0	8.0
1/25/2025 11:45	5.5	84.6	0.0	7.5	11.8	0.0	1/25/2025 11:45	3.0	12.9	0.0	7.0	12.4	0.0	8.0
1/25/2025 12:00	5.6	74.2	0.0	7.5	11.7	0.0	1/25/2025 12:00	3.0	12.7	0.0	7.0	12.4	0.0	8.0
1/25/2025 12:15	3.9	29.1	0.0	7.0	12.3	0.0	1/25/2025 12:15	3.0	11.6	0.0	7.0	12.4	0.4	8.4
1/25/2025 12:30	3.5	24.2	0.0	6.8	12.5	0.0	1/25/2025 12:30	3.1	12.7	0.0	6.9	12.4	0.0	8.0
1/25/2025 12:45	6.2	106.2	0.0	7.5	11.6	0.0	1/25/2025 12:45	3.2	12.8	0.0	7.0	12.4	0.0	8.0
1/25/2025 13:00	6.1	88.9	0.0	7.5	11.6	0.2	1/25/2025 13:00	3.2	12.8	0.0	7.0	12.3	0.0	8.0
1/25/2025 13:15	7.0	110.9	0.1	7.6	11.4	1.5	1/25/2025 13:15	3.3	11.9	0.0	6.9	12.3	0.0	8.0
1/25/2025 13:30	6.4	86.6	0.0	7.6	11.4	0.8	1/25/2025 13:30	3.4	12.9	0.0	7.1	12.3	0.0	8.0
1/25/2025 13:45	6.3	110.2	0.1	7.6	11.5	0.0	1/25/2025 13:45	3.4	12.8	0.0	7.0	12.3	0.0	8.0
1/25/2025 14:00	5.2	111.3	0.1	7.6	11.9	0.0	1/25/2025 14:00	3.5	12.8	0.0	7.0	12.2	0.1	8.1
1/25/2025 14:15	5.4	94.0	0.0	7.6	11.8	0.0	1/25/2025 14:15	3.6	12.9	0.0	7.0	12.2	0.0	8.0
1/25/2025 14:30	4.2	30.4	0.0	7.1	12.2	0.0	1/25/2025 14:30	3.6	12.9	0.0	7.0	12.2	0.0	8.0
1/25/2025 14:45	3.9	25.4	0.0	6.9	12.3	0.0	1/25/2025 14:45	3.6	12.8	0.0	7.0	12.2	0.0	8.0
1/25/2025 15:00	3.8	23.7	0.0	6.8	12.4	0.0	1/25/2025 15:00	3.6	12.9	0.0	7.0	12.2	0.0	8.0
1/25/2025 15:15	5.1	80.7	0.0	7.5	11.9	0.0	1/25/2025 15:15	3.6	12.8	0.0	6.9	12.2	0.0	8.0
1/25/2025 15:30	6.7	112.2	0.1	7.6	11.5	1.0	1/25/2025 15:30	3.6	12.9	0.0	7.0	12.1	0.0	8.0
1/25/2025 15:45	5.3	47.4	0.0	7.3	11.8	0.0	1/25/2025 15:45	3.6	12.7	0.0	7.0	12.2	0.0	8.0
1/25/2025 16:00	4.2	26.2	0.0	6.9	12.2	0.0	1/25/2025 16:00	3.7	12.9	0.0	7.0	12.1	0.0	8.0
1/25/2025 16:15	5.1	72.7	0.0	7.3	11.9	0.0	1/25/2025 16:15	3.6	12.8	0.0	7.0	12.1	0.0	8.0
1/25/2025 16:30	4.0	25.3	0.0	6.9	12.3	0.0	1/25/2025 16:30	3.6	12.9	0.0	7.0	12.2	0.5	8.5

1/25/2025 16:45	3.8	22.9	0.0	6.8	12.4	0.0	1/25/2025 16:45	3.6	12.6	0.0	7.0	12.1	0.0	8.0
1/25/2025 17:00	3.6	22.2	0.0	6.7	12.4	0.0	1/25/2025 17:00	3.5	12.9	0.0	7.0	12.2	0.0	8.0
1/25/2025 17:15	6.9	106.5	0.0	7.6	11.4	0.0	1/25/2025 17:15	3.5	12.9	0.0	7.0	12.2	0.0	8.0
1/25/2025 17:30	6.5	93.7	0.0	7.5	11.5	0.0	1/25/2025 17:30	3.4	12.9	0.0	7.0	12.2	0.0	8.0
1/25/2025 17:45	4.6	36.9	0.0	7.2	12.1	0.0	1/25/2025 17:45	3.4	12.9	0.0	7.0	12.2	0.0	8.0
1/25/2025 18:00	4.1	35.6	0.0	7.0	12.2	0.0	1/25/2025 18:00	3.4	12.3	0.0	7.0	12.2	0.0	8.0
1/25/2025 18:15	4.1	39.1	0.0	7.1	12.2	0.0	1/25/2025 18:15	3.4	12.9	0.0	7.0	12.2	0.0	8.0
1/25/2025 18:30	4.1	42.2	0.0	7.1	12.2	0.0	1/25/2025 18:30	3.3	13.0	0.0	6.9	12.2	0.0	8.0
1/25/2025 18:45	6.7	104.9	0.0	7.6	11.4	0.0	1/25/2025 18:45	3.3	12.8	0.0	7.0	12.2	0.0	8.0
1/25/2025 19:00	7.0	105.4	0.0	7.6	11.4	0.0	1/25/2025 19:00	3.3	12.2	0.0	7.0	12.2	0.0	8.0
1/25/2025 19:15	6.2	76.5	0.0	7.5	11.5	0.0	1/25/2025 19:15	3.2	12.8	0.0	7.0	12.2	0.0	8.0
1/25/2025 19:30	4.1	28.2	0.0	7.0	12.2	0.0	1/25/2025 19:30	3.2	13.0	0.0	7.0	12.2	0.0	8.0
1/25/2025 19:45	3.6	24.4	0.0	6.8	12.4	0.0	1/25/2025 19:45	3.2	12.7	0.0	7.0	12.2	0.0	8.0
1/25/2025 20:00	3.4	23.2	0.0	6.8	12.5	0.0	1/25/2025 20:00	3.2	13.0	0.0	7.0	12.3	0.0	8.0
1/25/2025 20:15	3.3	22.4	0.0	6.7	12.5	0.0	1/25/2025 20:15	3.2	12.7	0.0	7.0	12.2	0.0	8.0
1/25/2025 20:30	6.0	101.3	0.0	7.5	11.7	0.0	1/25/2025 20:30	3.1	13.0	0.0	7.0	12.2	0.0	8.0
1/25/2025 20:45	6.7	103.1	0.0	7.6	11.4	0.0	1/25/2025 20:45	3.1	13.0	0.0	6.9	12.3	0.0	8.0
1/25/2025 21:00	6.9	103.5	0.0	7.6	11.4	0.0	1/25/2025 21:00	3.2	12.9	0.0	7.0	12.3	0.0	8.0
1/25/2025 21:15	4.5	35.1	0.0	7.2	12.0	0.0	1/25/2025 21:15	3.2	12.7	0.0	7.0	12.3	0.0	8.0
1/25/2025 21:30	5.9	87.9	0.0	7.5	11.7	0.0	1/25/2025 21:30	3.2	13.0	0.0	7.0	12.3	0.0	8.0
1/25/2025 21:45	3.9	28.2	0.0	7.0	12.3	0.0	1/25/2025 21:45	3.2	12.9	0.0	7.0	12.2	0.0	8.0
1/25/2025 22:00	3.5	24.0	0.0	6.8	12.5	0.0	1/25/2025 22:00		12.9	0.0	7.0	12.2	0.0	8.0
1/25/2025 22:15	3.3	22.9	0.0	6.8	12.5	0.0	1/25/2025 22:15	3.2	12.9	0.0	7.0	12.2	0.3	8.3
1/25/2025 22:30	5.7	89.0	0.0	7.5	11.7	0.0	1/25/2025 22:30	3.2	12.9	0.0	7.0	12.2	0.0	8.0
1/25/2025 22:45	4.2	45.3	0.0	7.2	12.2	0.0	1/25/2025 22:45	3.2	12.9	0.0	7.0	12.2	0.1	8.1
1/25/2025 23:00	6.5	104.8	0.0	7.6	11.5	0.0	1/25/2025 23:00	3.2	12.0	0.0	7.0	12.3	0.0	8.0
1/25/2025 23:15	6.7	105.8	0.0	7.6	11.4	0.0	1/25/2025 23:15	3.1	13.0	0.0	7.0	12.3	0.0	8.0
1/25/2025 23:30	6.2	93.1	0.0	7.5	11.6	0.0	1/25/2025 23:30	3.1	12.9	0.0	6.9	12.3	0.0	8.0
1/25/2025 23:45	6.7	106.7	0.0	7.6	11.4	0.0	1/25/2025 23:45	3.1	13.0	0.0	7.0	12.2	0.0	8.0
1/26/2025 0:00	5.1	49.8	0.0	7.3	11.8	0.0	1/26/2025 0:00	3.0	12.8	0.0	7.0	12.3	0.0	8.0
1/26/2025 0:15	4.4	51.3	0.0	7.2	12.1	0.0	1/26/2025 0:15	3.0	12.2	0.0	6.9	12.3	0.0	8.0
1/26/2025 0:30	3.4	25.4	0.0	6.9	12.5	0.0	1/26/2025 0:30	3.0	12.6	0.0	7.0	12.3	0.0	8.0
1/26/2025 0:45	6.1	104.9	0.0	7.5	11.6	0.0	1/26/2025 0:45	2.9	11.9	0.0	7.0	12.3	0.0	8.0
1/26/2025 1:00	5.9	91.7	0.0	7.5	11.7	0.0	1/26/2025 1:00	2.9	13.0	0.0	7.0	12.3	0.0	8.0
1/26/2025 1:15	6.6	108.8	0.1	7.6	11.5	0.0	1/26/2025 1:15	2.9	13.0	0.0	7.0	12.3	0.0	8.0
1/26/2025 1:30	5.4	63.5	0.0	7.4	11.7	0.0	1/26/2025 1:30	2.9	13.0	0.0	7.0	12.3	0.4	8.4
1/26/2025 1:45	3.7	27.8	0.0	6.9	12.4	0.0	1/26/2025 1:45	2.9	12.9	0.0	6.9	12.4	0.0	8.0
1/26/2025 2:00	3.2	24.7	0.0	6.8	12.5	0.0	1/26/2025 2:00	2.8	12.7	0.0	6.9	12.4	0.0	8.0
1/26/2025 2:15	3.7	45.1	0.0	7.1	12.4	0.0	1/26/2025 2:15	2.8	13.0	0.0	7.0	12.4	0.0	8.0
1/26/2025 2:30	5.9	107.2	0.0	7.5	11.7	0.0	1/26/2025 2:30	2.8	12.9	0.0	7.0	12.3	0.0	8.0
1/26/2025 2:45	6.1	101.5	0.0	7.6	11.6	0.0	1/26/2025 2:45	2.8	11.7	0.0	7.0	12.4	0.0	8.0
1/26/2025 3:00	6.2	107.0	0.0	7.6	11.6	0.0	1/26/2025 3:00	2.8	12.9	0.0	6.9	12.4	0.0	8.0
1/26/2025 3:15	5.2	65.4	0.0	7.5	11.8	0.0	1/26/2025 3:15	2.8	12.7	0.0	7.0	12.4	0.0	8.0
1/26/2025 3:30	3.5	27.7	0.0	7.0	12.4	0.0	1/26/2025 3:30	2.7	12.0	0.0	7.0	12.4	0.0	8.0
1/26/2025 3:45	3.1	24.7	0.0	6.8	12.6	0.0	1/26/2025 3:45	2.7	11.4	0.0	7.0	12.4	0.0	8.0
1/26/2025 4:00	5.2	99.8	0.0	7.4	12.0	0.0	1/26/2025 4:00	2.7	12.9	0.0	7.0	12.4	0.0	8.0
1/26/2025 4:15	6.1	109.9	0.1	7.6	11.6	0.0	1/26/2025 4:15	2.7	13.0	0.0	7.0	12.4	0.0	8.0
1/26/2025 4:30	5.8	92.5	0.0	7.6	11.6	0.0	1/26/2025 4:30	2.7	12.9	0.0	6.9	12.4	0.0	8.0
1/26/2025 4:45	3.6	30.0	0.0	7.0	12.4	0.0	1/26/2025 4:45	2.7	11.7	0.0	7.0	12.4	0.0	8.0
1/26/2025 5:00	5.4	99.0	0.0	7.5	11.8	0.0	1/26/2025 5:00	2.7	12.9	0.0	7.0	12.4	0.0	8.0
1/26/2025 5:15	6.2	109.7	0.1	7.6	11.6	0.0	1/26/2025 5:15	2.6	12.9	0.0	7.0	12.4	0.0	8.0
1/26/2025 5:30	4.2	40.5	0.0	7.3	12.2	0.0	1/26/2025 5:30	2.6	12.9	0.0	6.9	12.4	0.0	8.0
1/26/2025 5:45	3.1	26.3	0.0	6.9	12.6	0.0	1/26/2025 5:45	2.6	12.0	0.0	7.0	12.4	0.0	8.0
1/26/2025 6:00	2.9	24.1	0.0	6.8	12.7	0.0	1/26/2025 6:00	2.6	11.3	0.0	7.0	12.4	0.0	8.0
1/26/2025 6:15	2.7	23.2	0.0	6.8	12.7	0.0	1/26/2025 6:15	2.6	12.9	0.0	6.9	12.4	0.0	8.0
1/26/2025 6:30	4.8	99.3	0.0	7.3	12.2	0.0	1/26/2025 6:30	2.6	12.7	0.0	7.0	12.4	0.0	8.0
1/26/2025 6:45	5.9	107.0	0.0	7.6	11.7	0.0	1/26/2025 6:45	2.5	12.9	0.0	6.9	12.5	0.0	8.0
1/26/2025 7:00	6.1	106.7	0.0	7.6	11.6	0.0	1/26/2025 7:00	2.5	12.9	0.0	7.0	12.4	0.0	8.0
1/26/2025 7:15	5.1	66.7	0.0	7.5	11.9	0.0	1/26/2025 7:15	2.5	12.9	0.0	7.0	12.5	0.0	8.0
1/26/2025 7:30	4.7	85.6	0.0	7.3	12.3	0.0	1/26/2025 7:30	2.5	12.7	0.0	7.0	12.5	0.0	8.0
1/26/2025 7:45	5.5	91.8	0.0	7.5	11.8	0.0	1/26/2025 7:45	2.5	12.2	0.0	7.0	12.5	0.0	8.0
1/26/2025 8:00	3.8	46.4	0.0	7.2	12.4	0.0	1/26/2025 8:00	2.5	12.7	0.0	7.0	12.5	0.0	8.0
1/26/2025 8:15	3.0	27.2	0.0	6.9	12.6	0.0	1/26/2025 8:15	2.5	12.2	0.0	7.0	12.5	0.0	8.0
1/26/2025 8:30	2.7	23.9	0.0	6.8	12.7	0.0	1/26/2025 8:30	2.4	12.7	0.0	7.0	12.5	0.0	8.0
1/26/2025 8:45	2.6	23.0	0.0	6.8	12.8	0.0	1/26/2025 8:45	2.4	13.0	0.0	7.0	12.5	0.0	8.0
1/26/2025 9:00	4.9	95.8	0.0	7.3	12.1	0.0	1/26/2025 9:00	2.4	12.8	0.0	7.0	12.5	0.0	8.0
1/26/2025 9:15	6.0	103.2	0.0	7.6	11.7	0.0	1/26/2025 9:15	2.4	12.2	0.0	7.0	12.5	0.0	8.0
1/26/2025 9:30	6.1	104.0	0.0	7.6	11.6	0.0	1/26/2025 9:30	2.4	13.0	0.0	7.1	12.5	0.2	8.2
1/26/2025 9:45	6.1	101.4	0.0	7.6	11.6	0.0	1/26/2025 9:45	2.4	12.9	0.0	7.0	12.5	0.0	8.0
1/26/2025 10:00	3.6	31.9	0.0	7.1	12.4	0.0	1/26/2025 10:00	2.4	13.0	0.0	7.0	12.5	0.0	8.0
1/26/2025 10:15	2.9	25.2	0.0	6.9	12.7	0.0	1/26/2025 10:15	2.5	12.8	0.0	7.0	12.6	0.0	8.0
1/26/2025 10:30	2.7	23.6	0.0	6.8	12.8	0.0	1/26/2025 10:30	2.5	12.9	0.0	7.0	12.6	0.0	8.0
1/26/2025 10:45	2.6	22.8	0.0	6.8	12.8	0.0	1/26/2025 10:45	2.6	12.9	0.0	6.8	12.5	0.0	8.0
1/26/2025 11:00	5.0	97.0	0.0	7.4	12.1	0.0	1/26/2025 11:00	2.6	12.9	0.0	7.0	12.5	0.0	8.0
1/26/2025 11:15	5.3	85.6	0.0	7.5	11.9	0.0	1/26/2025 11:15	2.7	12.8	0.0	7.0	12.5	0.0	8.0
1/26/2025 11:30	6.1	100.5	0.0	7.6	11.6	0.0	1/26/2025 11:30	2.7	12.9	0.0	7.0	12.5	0.0	8.0
1/26/2025 11:45	6.2	99.3	0.0	7.6	11.6	0.0	1/26/2025 11:45	2.8	12.8	0.0	7.0	12.5	0.0	8.0
1/26/2025 12:00	4.6	44.0	0.0	7.3	12.1	0.0	1/26/2025 12:00	2.8	12.2	0.0	7.0	12.5	0.0	8.0
1/26/2025 12:15	3.5	26.1	0.0	6.9	12.5	0.0	1/26/2025 12:15	2.9	12.6	0.0	7.0	12.4	0.0	8.0
1/26/2025 12:30	3.3	23.8	0.0	6.8	12.6	0.0	1/26/2025 12:30	3.0	12.2	0.0	7.0	12.4	0.0	8.0
1/26/2025 12:45	3.2	22.8	0.0	6.8	12.6	0.0	1/26/2025 12:45	3.0	12.8	0.0	7.0	12.4	0.0	8.0
1/26/2025 13:00	6.1	98.6	0.0	7.6	11.6	0.0	1/26/2025 13:00	3.1	12.9	0.0	7.0	12.4	0.3	8.3
1/26/2025 13:15	6.5	100.8	0.0	7.6	11.5	0.0	1/26/2025 13:15	3.2	12.6	0.0	7.0	12.4	0.0	8.0
1/26/2025 13:30	6.6	101.9	0.0	7.6	11.5	0.0	1/26/2025 13:30	3.2	12.2	0.0	7.0	12.3	0.0	8.0
1/26/2025 13:45	4.5	34.2	0.0	7.2	12.1	0.0	1/26/2025 13:45	3.3	12.8	0.0	7.0	12.3	0.0	8.0
1/26/2025 14:00	3.8	25.3	0.0	6.9	12.3	0.0	1/26/2025 14:00	3.4	12.9	0.0	7.0	12.3	0.0	8.0
1/26/2025 14:15	3.7	23.5	0.0	6.8	12.4	0.0	1/26/2025 14:15	3.4	12.8	0.0	7.0	12.2	0.0	8.0
1/26/2025 14:30	3.6	22.7	0.0	6.8	12.4	0.0	1/26/2025 14:30	3.5	12.9	0.0	7.0	12.2	0.0	8.0
1/26/2025 14:45	4.9	73.3	0.0	7.3	12.1	0.0	1/26/2025 14:45	3.5	12.9	0.0	7.0	12.2	0.0	8.0
1/26/2025 15:00	6.6	99.9	0.0	7.6	11.5	0.8	1/26/2025 15:00	3.5	12.9	0.0	7.0	12.2	0.0	8.0
1/26/2025 15:15	6.9	100.2	0.0	7.6	11.4	0.3	1/26/2025 15:15	3.6	12.8	0.0	7.0	12.2	0.0	8.0
1/26/2025 15:30	7.0	100.2	0.0	7.6	11.3	0.0	1/26/2025 15:30	3.6	12.9	0.0	7.0	12.2	0.0	8.0
1/26/2025 15:45	5.3	40.8	0.0	7.3	11.8	0.0	1/26/2025 15:45	3.6	12.9	0.0	7.0	12.1	0.0	8.0
1/26/2025 16:00	4.2	26.0	0.0	6.9	12.2	0.0	1/26/2025 16:00	3.6	13.0	0.0	7.0	12.1	0.0	8.0
1/26/2025 16:15	3.9	23.9	0.0	6.8	12.3	0.0	1/26/2025 16:15	3.6	12.8	0.0	7.0	12.1	0.0	8.0
1/26/2025 16:30	3.8	22.9	0.0	6.8	12.4	0.0	1/26/2025 16:30	3.6	13.0	0.0	7.0	12.1	0.0	8.0
1/26/2025 16:45	3.8	25.1	0.0	6.7	12.4	0.0	1/26/2025 16:45	3.5	12.8	0.0	7.0	12.2	0.0	8.0
1/26/2025 17:00	6.7	100.7	0.0	7.6	11.4	0.0	1/26/2025 17:00	3.5	13.0	0.0	7.0	12.2	0.0	8.0
1/26/2025 17:15	6.5	90.4	0.0	7.6	11.5	0.0	1/26/2025 17:15	3.4	12.8	0.0	7.0	12.2	0.0	8.0
1/26/2025 17:30	6.9	104.9	0.0	7.6	11.4	0.0	1/26/2025 17:30	3.4	13.0	0.0	7.0	12.2	0.0	8.0
1/26/2025 17:45	5.4	50.9	0.0	7.4	11.8	0.0	1/26/2025 17:45	3.4	12.7	0.0	7.0	12.2	0.0	8.0
1/26/2025 18:00	4.0	26.8	0.0	7.0	12.3	0.0	1/26/2025 18:00	3.3	13.0	0.0	7.0	12.2	0.0	8.0
1/26/2025 18:15	3.7	24.3	0.0	6.8	12.4	0.0	1/26/2025 18:15	3.3	12.9	0.0	6.9	12.2	0.0	8.0
1/26/2025 18:30	3.5	23.2	0.0	6.8	12.4	0.0	1/26/2025 18:30	3.3	13.0	0.0	6.9	12.2	0.0	8.0
1/26/2025 18:45	5.5	85.2	0.0	7.5	11.8	0.7	1/26/2025 18:45	3.3	12.9	0.0	7.0	12.2	0.0	8.0
1/26/2025 19:00	3.7	26.5	0.0	7.0	12.3	0.0	1/26/2025 19:00	3.2	13.0	0.0	7.0	12.2	0.0	8.0
1/26/2025 19:15	6.6	110.9	0.1	7.6	11.5	0.0	1/26/2025 19:15	3.2	12.9	0.0	7.0	12.2	0.0	8.0
1/26/2025 19:30	6.9	113.9	0.1	7.6	11.4	0.0	1/26/2025 19:30	3.2	11.7	0.0	7.0	12.3	0.1	8.1
1/26/2025 19:45	6.9	115.4	0.1	7.6	11.4	0.7	1/26/2025 19:45	3.2	13.0	0.0	7.0	12.3	0.0	8.0
1/26/2025 20:00	7.0	115.8	0.1	7.6	11.3	0.0	1/26/2025 20:00		13.0	0.0	7.0	12.2	0.0	8.0
1/26/2025 20:15	4.6	37.7	0.0	7.2	12.0	0.0	1/26/2025 20:15	3.1	12.9	0.0	7.0	12.3	0.0	8.0
1/26/2025 20:30	3.7	26.9	0.0	6.9	12.4	0.0	1/26/2025 20:30	3.1	13.0	0.0	7.0	12.3	0.0	8.0
1/26/2025 20:45	3.4	24.6	0.0	6.8	12.5	0.0	1/26/2025 20:45	3.1	13.0	0.0	7.0	12.3	0.0	8.0
1/26/2025 21:00	3.3	23.6	0.0	6.8	12.5	0.0	1/26/2025 21:00	3.1	11.7	0.0	7.0	12.3	0.0	8.0
1/26/2025 21:15	3.2	22.8	0.0	6.7	12.6	0.0	1/26/2025 21:15	3.0	12.9	0.0	7.0	12.3	0.0	8.0
1/26/2025 21:30	6.0	109.6	0.1	7.6	11.7	0.3	1/26/2025 21:30	3.0	13.0	0.0	7.0	12.3	0.0	8.0
1/26/2025 21:45	6.6	112.8	0.1	7.6	11.5	0.0	1/26/2025 21:45	3.0	12.9	0.0	7.0	12.3	0.0	8.0
1/26/2025 22:00	6.6	113.4	0.1	7.6		0.0	1/26/2025 22:00	3.0	12.1	0.0	7.0	12.3	0.0	8.0
1/26/2025 22:15	5.6	72.4	0.0	7.5	11.7	0.0	1/26/2025 22:15	3.0	13.0	0.0	7.0	12.3	0.0	8.0
1/26/2025 22:30	3.7	28.6	0.0	7.0	12.4	0.0	1/26/2025 22:30	2.9	11.7	0.0	7.0	12.3	0.0	8.0
1/26/2025 22:45	3.3	25.2	0.0	6.8	12.5	0.0	1/26/2025 22:45	2.9	12.9	0.0	6.9	12.4	0.0	8.0
1/26/2025 23:00	3.1	23.8	0.0	6.8	12.6	0.0	1/26/2025 23:00	2.9	13.0	0.0	7.0	12.3	0.0	8.0
1/26/2025 23:15	3.0	23.4	0.0	6.8	12.6	0.0	1/26/2025 23:15	2.9	11.7	0.0	7.0	12.4	0.0	8.0
1/26/2025 23:30	5.0	91.4	0.0	7.4	12.0	0.0	1/26/2025 23:30	2.9	13.0	0.0	6.9	12.4	0.0	8.0
1/26/2025 23:45	6.2	112.6	0.1	7.6	11.6	0.0	1/26/2025 23:45	2.8	12.9	0.0	7.0	12.3	0.0	8.0