



TECHNICAL MEMORANDUM

To: **Ian McAllister, Ashleigh Crompton, Mike Champion, Mark Zan and Ryan Schucroft (Woodfibre LNG)** **Date:** **23 Jan 2026**

From: **Holly Pelletier, Cheng Kuang and Patrick Mueller (Lorax)** **Project #:** **A633-9**

Subject: **PE-111578 Weekly Discharge and Compliance Report #97 for January 11 - 17**

Waste Discharge Authorization (WDA) Effluent Permit PE-111578 was issued by the British Columbia Energy Regulator (BCER) to Woodfibre LNG on February 9, 2024. The associated WDA discharge and compliance monitoring program is conducted by on-site Environmental Monitors (Roe Environmental) that are sub-contracted to the civil works contractor (LB LNG). Analytical samples are submitted by Roe Environmental to ALS Environmental in Burnaby, BC, for testing. Lorax Environmental Services Ltd. (Lorax) provides water quality database management and WDA compliance reporting services to Woodfibre LNG.

This technical memorandum (Report #97) was prepared by Lorax and summarizes WDA monitoring conducted for the period of January 11 - 17. Monitoring data and pending results from prior monitoring periods available at the time of reporting are tabulated and included as appendices to this memorandum. Report #97 has been prepared to meet the requirements specified in Condition 4.2 of PE-111578:

“The Permittee shall summarize the results of the discharge and compliance monitoring program in a report that shall be submitted to the BCER weekly over the term of this permit. Reports must include suitable tabulated data. The table must include any applicable regulatory limits/guidelines e.g. permit limits, BC Water Quality Guidelines etc. Any exceedances of respective regulatory limits/guidelines must be clearly highlighted. Any missed sampling events/missing data must 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 this subject permit, and also made publicly available on the Woodfibre LNG Environmental Reporting webpage.”

Site layout and water management figures and site images are included in Appendix A. Monitoring results are tabulated in Appendix B through Appendix F for contact water, treated water and receiving environment samples.

1. Current Conditions

1.1 Water Management Infrastructure

The Construction Phase of the Woodfibre LNG Export Facility commenced in October 2023. Shoring works along the foreshore areas were initiated in December 2023, and construction of water management infrastructure commenced in early 2024. Land-based construction occurs within two water management areas east and west of Mill Creek, referred to as the east and west catchments, respectively. Non-contact water is intercepted and diverted around the construction areas to Howe Sound and Mill Creek. Stormwater runoff collected within the east and west catchment areas (7.12 and 5.92 ha, respectively) is managed as site contact water and is conveyed to the East Wastewater Treatment Plant (WWTP) for treatment, or to the East and West Sedimentation Ponds for settling of suspended particulate. Intermittent discharge to Howe Sound from the East and West Sedimentation Ponds commenced April and October 2024, respectively.

Non-contact water from the slopes above and outside the Woodfibre LNG construction area is intercepted by diversion ditches and conveyed to Howe Sound or Mill Creek. Diversion ditches for the west catchment convey water to Mill Creek at station OUT-06, or to Howe Sound at station OUT-02 (Appendix A, Figure 1). During heavy precipitation, non-contact water is also conveyed to Howe Sound via station OUT-01. East of Mill Creek, non-contact water is intercepted and diverted around the east catchment along pre-existing road ditches that flow to East Creek or Mill Creek. The lower reach of East Creek discharges to Howe Sound through Outfall 12 (OUT-12).

The contact water conveyance ditches described in PE- 111578 were designed to transport non-contaminated contact water (*i.e.*, stormwater) to the East and West Sedimentation Ponds and will be constructed following completion of site preparation activities (*e.g.*, site grading, bedrock excavation) along the ditch lines. Until the ditches are operational, contact waters within the catchments are managed to remain on site using a system of berms, sumps, temporary ditches and baker tanks for intermediate storage and are then directed to the East WWTP for treatment, or the East and West Sedimentation Ponds prior to re-use or discharge.

The East and West WWTPs were commissioned to treat contaminated contact water in April and August 2024, respectively. The installed treatment capacities are 1,080 m³/day (East WWTP) and 120 m³/day (West WWTP). Lower than expected volumes of contaminated contact water have been encountered during construction; therefore, operation of the West WWTP has been suspended since September 25, 2024, and all contaminated contact waters are directed to the East WWTP for treatment. Treated effluent is generally directed to the East Sedimentation Pond. Occasionally the East WWTP effluent is discharged to Howe Sound at authorized discharge location SP-E-OUT.

Discharge from the East and West Sedimentation Ponds is controlled using pumps. Sedimentation pond effluent is pumped to the 2700GPM TSS settling system to remove TSS prior to discharge.

Each sedimentation pond has an associated authorized discharge location (stations SP-E-OUT and SP-W-OUT) with an initial dilution zone (IDZ) where discharged water mixes with Howe Sound surface waters. The IDZ is defined in PE-111578 and extends in a 150 m radius from each point of discharge into Howe Sound. Since June 2025, surplus contact water in the East Sedimentation Pond is directed to the West Sedimentation Pond for storage or discharge, and discharge of clarified non-contaminated contact water to Howe Sound generally only occurs from the West Sedimentation Pond.

The flocculant-based 2700GPM TSS settling system has an installed capacity to clarify 14,700 m³/day of contact water and consists of six parallel treatment trains (Trains 1 to 6), each with an installed capacity of 2450 m³/day. A staged commissioning of the 2700GPM system began June 2025 and was completed November 2025. Only one train is operated when contact water flows are low. Additional trains are activated as needed to match the influent volumes. Some of the TSS-clarified water may be recirculated back to the ponds or re-used for construction purposes (*e.g.*, dust suppression).

The construction phase water management layout and monitoring stations are shown in Appendix A, Figure 1. Contact water collection and dewatering locations and photographs of the sedimentation ponds are shown in Appendix A, Figure 2 through Figure 5.

1.2 Weather and Water Management

Variable weather conditions were observed during the January 11 - 17 monitoring period, with precipitation recorded on January 11 (61.6 mm), January 12 (104.2 mm) and January 13 (5.2 mm). The total precipitation amount during the monitoring period was 171 mm. The daily weather conditions are summarized in Table 1.

Table 1:
Summary of Certified Project Area (CPA) Daily Weather Conditions.

Date	Precipitation (mm)	Max. Temp (°C)	Min. Temp (°C)	Weather Description
2026-01-11	61.6	7.2	3.6	Heavy Rain
2026-01-12	104.2	8.7	5.6	Heavy Rain
2026-01-13	5.2	9.4	5.3	Mix of sun and cloud
2026-01-14	0	7.2	4.2	Sunny
2026-01-15	0	10	3.6	Sunny
2026-01-16	0	12.6	3.7	Sunny
2026-01-17	0	12.9	3.3	Sunny

Note: Data retrieved from the Woodfibre on-site weather station operated by Stantec.

From January 11 - 17, the East Sedimentation Pond received water from the Area 1100 Sump, the M09 Sump and recirculated effluent from the East WWTP (Appendix A, Figure 2). No water from the East Sedimentation Pond was transferred to the West Sedimentation Pond from January 11 - 17 (Appendix B, Table B-6).

Routine operation of the East WWTP continued during the monitoring period (January 11 - 17). Concrete contact water and water from the Wash Bay and Hydrovac Pit was periodically directed to the East WWTP for treatment, as well as water stored in the East Sedimentation Pond (Appendix A, Figure 2 and Figure 3). East WWTP treated effluent was discharged to the East Sedimentation Pond each day during the monitoring period (January 11 - 17) except on January 12 and 13 when a total of 204 m³ of East WWTP treated effluent was intermittently discharged to Howe Sound from station SP-E-OUT, and January 16 and 17 when the East WWTP was not operated. Daily water volumes processed by the East WWTP and discharged to Howe Sound are provided in Appendix B (Table B-6).

From January 11 - 17, the West Sedimentation Pond received water from the Area 4100 and Area 4200 Sumps as well as recirculated effluent from the 2700GPM TSS settling system (Appendix A, Figure 3). West Sedimentation Pond effluent was clarified through the 2700GPM system from January 11 to 14 and either recirculated back to the pond or intermittently discharged to Howe Sound. A total of 14,731 m³ of clarified effluent was intermittently discharged to Howe Sound from station SP-W-OUT during the monitoring period (January 11 - 17). Clarified effluent was not reclaimed for construction use. Daily clarified effluent volumes from the 2700GPM TSS settling system recirculated to the West Sedimentation Pond or discharged to Howe Sound are provided in Appendix C (Table C-5).

2. Monitoring Summary

The locations of PE-111578 monitoring stations are shown on Figure 1. Monitoring is conducted by the on-site Environmental Monitors (Roe Environmental). Analytical samples are submitted by Roe Environmental to ALS Environmental in Burnaby, BC for testing.

The following PE-111578 and supplementary monitoring stations are currently being monitored:

- Non-contact diversion ditch outlet monitoring stations (OUT-01, OUT-02 and OUT-06). Non-contact diversion ditch water at OUT-01 has been temporarily redirected to OUT-02 since October 12, 2025, to facilitate the reconstruction of the outfall at OUT-01.
- Creek water monitoring stations for Woodfibre, Mill and East Creek (SW-01, SW-02, SW-03, SW-04, SW-07).
- Contact water monitoring locations (SP-E-IN, WWTP-E-IN, COMB-WWTP-E-IN, WWTP-E-OUT, SP-W-IN, 2700GPM-IN, and 2700GPM-OUT).
- Supplementary contact water stations at the outlet of each sampling train. These samples are identified as W2700T#-OUT (with # equal to the train number).
- Effluent compliance stations (SP-E-OUT and SP-W-OUT). As described in Section 1.1, when there is surplus water, West Sedimentation Pond clarified effluent from the individual 2700GPM trains is directed to SP-W-OUT for discharge. From late September to early December 2025, SP-W-OUT was sampled from the discharge manhole. From December 1

to 8, a pipe manifold was installed that combines effluent from the individual trains into a single discharge line and is configured with a sampling port. Since December 8, samples have been collected at the sampling port or at the manhole.

- Howe Sound reference and IDZ monitoring stations (WQR1, WQR2, IDZ-E1, IDZ-E2, IDZ-W1, and IDZ-W2).

The influent culverts for East and West Sedimentation Ponds are not operational and the associated influent stations defined in PE-111578 (SP-E-IN-1, SP-E-IN-2, SP-W-IN-1 and SP-W-IN-2) have been replaced with temporary influent monitoring stations SP-E-IN and SP-W-IN (East and West Sedimentation Pond, respectively) located in-pond, at the influent end of each pond.

A flocculant-based TSS settling system (2700GPM) is used at the West Sedimentation Pond as described in Section 1.1. Influent and effluent are monitored at stations 2700GPM-IN and 2700GPM-OUT, respectively. The 2700GPM-OUT station represents the combined discharge line from all six individual treatment trains when clarified effluent is directed to the West Sedimentation Pond and is equivalent to the SP-W-OUT station. At times when only one 2700GPM treatment train is operated, the 2700GPM-OUT sample may be collected at the outlet of that train. Monitoring of the individual 2700GPM settling system treatment trains is supplemental to the PE-111578 monitoring requirements and is conducted at the discretion of field staff.

Water quality was monitored at stations IDZ-E1, IDZ-E2, IDZ-W1, IDZ-W2, WQR1, WQR2, SP-E-IN, SP-E-OUT, WWTP-E-IN, WWTP-E-OUT, SP-W-IN, SP-W-OUT, 2700GPM-IN, W2700T1-OUT, W2700T2-OUT, and W2700T3-OUT during the monitoring period (January 11 - 17). Sampling dates and parameters tested are summarized in Table 2.

Overall, the PE-111578 monitoring requirements that were applicable during the monitoring period (January 11 - 17) were met. The initial high frequency monitoring requirements outlined in effluent permit PE-111578 for the sedimentation ponds, WWTP and IDZ stations have been met. On June 25, 2025, BCER approved the implementation of low-frequency (*i.e.*, bi-monthly and monthly) monitoring requirements specified in PE-111578 for all parameters, except for metals, hexavalent chromium, and methylmercury, which continue to be monitored weekly at sedimentation pond and WWTP stations.

Daily field parameters and a weekly analytical sample were not collected at the east catchment effluent compliance station (SP-E-OUT) on January 11 nor January 14 to 17 as there was no discharge to Howe Sound from the East Sedimentation Pond on those days. Daily field parameters were not collected at the west catchment compliance station (SP-W-OUT) January 15 to 17 as there was no discharge to Howe Sound from the West Sedimentation Pond on those days. Daily field parameters were not collected at the influent station of the East WWTP (WWTP-E-IN) on January 17 nor at the effluent station (WWTP-E-OUT) on January 16 and 17 as the East WWTP was not operational at the time of monitoring. Daily field parameters and a weekly analytical

sample were not collected at the influent and effluent stations of the West WWTP (WWTP-W-IN and WWTP-W-OUT, respectively) as it was not operational during the monitoring period (January 11 - 17).

Table 2:
Summary of PE-111578 Monitoring Samples Collected January 11 - 17.

Sampling Date	Sample	Description	Parameters Tested	Monitoring Frequency
January 11, 2026	SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	WWTP-E-IN	East WWTP at the influent meter box	Field Parameters.	D
	WWTP-E-OUT	East WWTP at the effluent meter box	Field Parameters.	D
	SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	Field, Physical & General Parameters, Total, Dissolved and Speciated Metals, and Methylmercury.	D, M ₂ , W
	SP-W-OUT	West Sedimentation Pond clarified effluent discharge to Howe Sound, collected at the manifold that combines effluent from the individual 2700GPM trains into a single discharge line configured with a SP-W-OUT sampling port	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	D, M, M ₂ , W
	2700GPM-IN	2700GPM TSS settling system at the influent meter box	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	P
	W2700T1-OUT	2700GPM TSS settling system at the outlet of Train 1	Field, Physical & General Parameters, Total, Dissolved and Speciated Metals, and Methylmercury.	P
	W2700T2-OUT	2700GPM TSS settling system at the outlet of Train 2	Field, Physical & General Parameters, Total, Dissolved and Speciated Metals, and Methylmercury.	
	W2700T3-OUT	2700GPM TSS settling system at the outlet of Train 3	Field, Physical & General Parameters, Total, Dissolved and Speciated Metals, and Methylmercury.	
	IDZ-W1-0.5	Howe Sound IDZ station W1; 0.5 m below surface	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	M
	IDZ-W1-2m	Howe Sound IDZ station W1; 2 m below surface	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	
	IDZ-W1-SF	Howe Sound IDZ station W1; 2 m above the seafloor	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	
	IDZ-W2-0.5	Howe Sound IDZ station W2; 0.5 m below surface	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	
	IDZ-W2-2m	Howe Sound IDZ station W2; 2 m below surface	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	
	IDZ-W2-SF	Howe Sound IDZ station W2; 2 m above the seafloor	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	
January 12, 2026	WQR2-0.5	Reference site 2; 0.5 m below surface	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	M
	WQR2-2m	Reference site 2; 2 m below surface	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	
	WQR2-SF	Reference site 2; 2 m above the seafloor	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	
	SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	Field, Physical & General Parameters, Total, Dissolved and Speciated Metals, and Methylmercury.	
	SP-E-OUT	East WWTP treated effluent, collected at the sampling port	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	
	WWTP-E-IN	East WWTP at the influent meter box	Field, Physical & General Parameters, Total, Dissolved and Speciated Metals, and Methylmercury.	
January 13, 2026	WWTP-E-OUT	East WWTP at the effluent meter box	Field, Physical & General Parameters, Total, Dissolved and Speciated Metals, and Methylmercury.	D, M ₂ , W
	SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	
	SP-W-OUT	West Sedimentation Pond clarified effluent discharge to Howe Sound, collected at the manifold that combines effluent from the individual 2700GPM trains into a single discharge line configured with a SP-W-OUT sampling port	Field Parameters.	
	2700GPM-IN	2700GPM TSS settling system at the influent meter box	Field Parameters.	
	SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	
	SP-E-OUT	East WWTP treated effluent, collected at the sampling port	Field Parameters.	
January 14, 2026	WWTP-E-IN	East WWTP at the influent meter box	Field Parameters.	D
	WWTP-E-OUT	East WWTP at the effluent meter box	Field Parameters.	
	SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	
	SP-W-OUT	West Sedimentation Pond clarified effluent discharge to Howe Sound, collected at the manifold that combines effluent from the individual 2700GPM trains into a single discharge line configured with a SP-W-OUT sampling port	Field Parameters.	
	2700GPM-IN	2700GPM TSS settling system at the influent meter box	Field Parameters.	
	SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	
	WWTP-E-IN	East WWTP at the influent meter box	Field Parameters.	
	WWTP-E-OUT	East WWTP at the effluent meter box	Field Parameters.	
	SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	
	SP-W-OUT	West Sedimentation Pond clarified effluent discharge to Howe Sound, collected at the manifold that combines effluent from the individual 2700GPM trains into a single discharge line configured with a SP-W-OUT sampling port	Field Parameters.	
	2700GPM-IN	2700GPM TSS settling system at the influent meter box	Field Parameters.	
	IDZ-E1-0.5	Howe Sound IDZ station E1; 0.5 m below surface	Field Parameters.	M
	IDZ-E1-2m	Howe Sound IDZ station E1; 2 m below surface	Field Parameters.	
	IDZ-E1-SF	Howe Sound IDZ station E1; 2 m above the seafloor	Field Parameters.	
	IDZ-E2-0.5	Howe Sound IDZ station E2; 0.5 m below surface	Field Parameters.	
	IDZ-E2-2m	Howe Sound IDZ station E2; 2 m below surface	Field Parameters.	
	IDZ-E2-SF	Howe Sound IDZ station E2; 2 m above the seafloor	Field Parameters.	
	WQR1-0.5	Reference site 1; 0.5 m below surface	Field Parameters.	
	WQR1-2m	Reference site 1; 2 m below surface	Field Parameters.	
	WQR1-SF	Reference site 1; 2 m above the seafloor	Field Parameters.	

Table 2 (continued):
Summary of PE-111578 Monitoring Samples Collected January 11 - 17.

Sampling Date	Sample	Description	Parameters Tested	Monitoring Frequency
January 15, 2026	SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	WWTP-E-IN	East WWTP at the influent meter box	Field Parameters.	D
	WWTP-E-OUT	East WWTP at the effluent meter box	Field Parameters.	D
	SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
January 16, 2026	2700GPM-IN	2700GPM TSS settling system at the influent meter box	Field Parameters.	P
	SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	WWTP-E-IN	East WWTP at the influent meter box	Field Parameters.	D
	SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
January 17, 2026	2700GPM-IN	2700GPM TSS settling system at the influent meter box	Field Parameters.	P
	SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	2700GPM-IN	2700GPM TSS settling system at the influent meter box	Field Parameters.	P

Notes:

Monitoring frequency requirements under PE-111578 are indicated as follows:

D – daily monitoring of field parameters at WWTP and sedimentation pond influent and effluent stations.

M – monthly monitoring for all parameters at WWTP, sedimentation pond and receiving environment stations. Monthly monitoring for General parameters, except ammonia, nitrate and nitrite (*i.e.*, nitrogen species) are monitored weekly during blasting season.

M₂ – bi-monthly monitoring for physical parameters at WWTP and sedimentation pond stations.

W – weekly monitoring for metals, chromium speciation and methylmercury at WWTP and sedimentation pond influent and effluent stations, effective June 25, 2025.

P – periodic monitoring for targeted parameters that is supplementary to PE-111578 requirements.

3. Water Quality Results

3.1 ***Summary of Reported Results***

Analytical results and associated field measurements included in this weekly report (Report #97) are listed below in Table 3, with additional field measurements presented in Table B-4 (Appendix B) and Table C-4 (Appendix C). Testing for methylmercury, dioxins, furans and toxicity may require four weeks or longer to complete. Analytical results not reported will be included in future weekly reports. Reporting of results is pending for the following samples and parameters:

- IDZ-E1, IDZ-E2, IDZ-W1, IDZ-W2, WQR1 and WQR2 collected November 25 at 0.5 m below surface (chronic toxicity);
- SP-E-OUT collected December 15 (dioxins and furans);
- SP-W-OUT and 2700GPM-IN collected December 15 (dioxins and furans);
- IDZ-E1, IDZ-E2, IDZ-W1, IDZ-W2, WQR1 and WQR2 collected at 0.5 m below surface December 15 (dioxins and furans);
- SP-E-OUT collected December 16 (dioxins and furans);
- SP-E-OUT collected December 17 (dioxins and furans);
- SP-W-OUT and 2700GPM-IN collected December 26 (dioxins and furans);
- SP-W-OUT and 2700GPM-IN collected December 28 (dioxins and furans);
- SP-W-IN, SP-W-OUT and 2700GPM-IN collected January 4 (dioxins and furans);
- OUT-01, OUT-02 and OUT-06 collected January 4 (field and all analytical parameters);
- SP-E-IN, WWTP-E-IN and WWTP-E-OUT collected January 5 (dioxins and furans);
- SW-01, SW-02, SW-03, SW-04 and SW-07 collected January 5 (total mercury, methylmercury, dioxins and furans);
- SP-W-OUT and 2700GPM-IN collected January 11 (dioxins and furans);
- IDZ-W1, IDZ-W2 and WQR2 collected January 11 (field and all analytical parameters);
- SP-E-OUT collected January 12 (dioxins and furans);
- IDZ-E1, IDZ-E2 and WQR1 collected January 14 (field and all analytical parameters).

Table 3:
Summary of Analytical Results and Associated Field Measurements Included in Weekly Discharge and Compliance Report #97.

Sample	Description	Sampling Date	Parameters Reported
IDZ-W1-0.5	Howe Sound IDZ station W1; 0.5 m below surface	December 6, 2025	Dioxins and Furans.
IDZ-W1-2m	Howe Sound IDZ station W1; 2 m below surface		
IDZ-W1-SF	Howe Sound IDZ station W1; 2 m above the seafloor		
IDZ-W2-0.5	Howe Sound IDZ station W2; 0.5 m below surface		
IDZ-W2-2m	Howe Sound IDZ station W2; 2 m below surface		
IDZ-W2-SF	Howe Sound IDZ station W2; 2 m above the seafloor		
WQR2-0.5	Reference site 2; 0.5 m below surface		
WQR2-2m	Reference site 2; 2 m below surface		
WQR2-SF	Reference site 2; 2 m above the seafloor		
IDZ-E1-0.5	Howe Sound IDZ station E1; 0.5 m below surface		
IDZ-E1-2m	Howe Sound IDZ station E1; 2 m below surface	December 12, 2025	Dioxins and Furans.
IDZ-E1-SF	Howe Sound IDZ station E1; 2 m above the seafloor		
IDZ-E2-0.5	Howe Sound IDZ station E2; 0.5 m below surface		
IDZ-E2-2m	Howe Sound IDZ station E2; 2 m below surface		
IDZ-E2-SF	Howe Sound IDZ station E2; 2 m above the seafloor		
WQR1-0.5	Reference site 1; 0.5 m below surface		
WQR1-2m	Reference site 1; 2 m below surface		
WQR1-SF	Reference site 1; 2 m above the seafloor		
SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond		
WWTP-E-IN	East WWTP at the influent meter box		Methylmercury.
WWTP-E-OUT	East WWTP at the effluent meter box		
SW-01	Lower Reach of Woodfibre Creek (near the mouth)	January 5, 2026	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, VOCs, and PAHs.
SW-02	Lower Reach of Mill Creek (upstream of the third bridge)		
SW-03	Mill Creek Estuary		
SW-04	Lower Reach of East Creek (near the outlet to the outfall culvert)		
SW-07	Upstream Mill Creek (at the diversion inlet)		
SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond		Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, and Methylmercury.
SP-W-OUT	West Sedimentation Pond clarified effluent discharge to Howe Sound, collected at the manifold that combines effluent from the individual 2700GPM trains into a single discharge line configured with a new SP-W-OUT sampling port		Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, VOCs, PAHs, and Methylmercury.
2700GPM-IN	2700GPM TSS settling system at the influent meter box	January 11, 2026	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, VOCs, PAHs, and Methylmercury.
W2700T1-OUT	2700GPM TSS settling system at the outlet of Train 1		Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, VOCs, PAHs, and Methylmercury.
W2700T2-OUT	2700GPM TSS settling system at the outlet of Train 2		Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, and Methylmercury.
W2700T3-OUT	2700GPM TSS settling system at the outlet of Train 3		Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, and Methylmercury.
SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	January 12, 2026	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, and Methylmercury.
SP-E-OUT	East WWTP treated effluent, collected at the sampling port		Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, VOCs, PAHs, and Methylmercury.
WWTP-E-IN	East WWTP at the influent meter box		Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, and Methylmercury.
WWTP-E-OUT	East WWTP at the effluent meter box		Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, and Methylmercury.

3.2 Screening and Reporting Overview

Water quality and flow monitoring results are screened against operational minimum discharge objectives (MDOs) for the East WWTP, and PE-111578 discharge limits for sedimentation pond and 2700GPM TSS settling system stations. The East WWTP MDOs were set equal to Canadian Council of Ministers of the Environment (CCME) water quality guidelines (WQGs) and the PE-111578 discharge limits. Contact and non-contact water monitoring results are also screened against Canadian (Canadian Council of Ministers of the Environment, CCME), Federal (Environment and Climate Change Canada, ECCC) and BC water quality guidelines (WQGs). All water quality data are recorded in the Woodfibre LNG environmental monitoring database. However, for brevity, a sub-set of the results are presented in the weekly report appendices. Results are reported for parameters with a freshwater, estuarine or marine water quality guideline for the protection of aquatic life, parameters with a discharge limit, parameters of potential concern (*i.e.*, dioxins and furans) as well as other parameters that are relevant for water quality interpretation.

It is expected that samples of contact water and samples collected within the IDZ (*i.e.*, mixing zone) defined in PE-111578 for the authorized discharge locations may have parameter concentrations above baseline or background (*i.e.*, reference station) concentrations due to project influence. As well, for receiving environment samples, parameter concentrations above a WQG value but within the range of values observed in the baseline monitoring program are considered to represent the background conditions of the water.

The values used for screening are listed in the water quality tables provided in the appendices. Results above a screening value are highlighted in the tables. Samples collected from sedimentation pond effluent that is discharged to Howe Sound (monitored at stations SP-E-OUT and SP-W-OUT) are evaluated for non-compliance to PE-111578 discharge limits. Exceedances in contact water that remains on-site and is not discharged (*e.g.*, WWTP influent and effluent, sedimentation pond influent, TSS settling system influent, and TSS settling system effluent that is recirculated) are screened for comparison purposes only, and exceedances in these samples do not represent non-compliance to the PE-111578 conditions.

Canadian, Federal and BC WQGs are not specified for dioxins and furans. The general term “dioxins and furans” refers to a total of 210 polychlorinated dibenzo-*p*-dioxin (PCDD) and polychlorinated dibenzofuran (PCDF) compounds. A sub-set of 17 of the most toxic PCDDs and PCDFs are typically evaluated for toxicity by converting the individual parameter concentrations to toxic equivalent (TEQ) values that are summed and evaluated as a single PCDD/F TEQ parameter. To address uncertainties for results reported as not detected, two PCDD/F TEQ values are reported. A “lower-bound PCDD/F TEQ” is calculated assuming a concentration of zero for results reported as not detected, therefore, if all 17 of the individual compounds in the sub-set are

not detected the lower-bound PCDD/F TEQ will equal zero. An “upper-bound PCDD/F TEQ” is calculated assuming a concentration equal to the detection limit for results reported as not detected. These two parameters span the range of possible TEQs if one or more of the PCDDs and PCDFs are reported as not detected.

The BC WQG for total mercury is a sample-specific calculated value that is based on the concentration of methylmercury in a sample. Although an approved BC WQG for the protection of aquatic life for methylmercury has not been explicitly established, the BC Ambient Water Quality Guidelines for Mercury Overview Report indicates the total mercury WQG is derived from a methylmercury concentration threshold of 0.0001 µg/L (0.1 ng/L) that is set at a concentration that protects fish from mercury bioaccumulation to levels that could harm wildlife that consumes fish. Therefore, if methylmercury results are reported, the 0.0001 µg/L value is presented as a WQG to support the interpretation of methylmercury results.

A summary of reported and pending results is provided in Section 3.1. Results for effluents from East WWTP, 2700GPM TSS settling system, and East and West Sedimentation Ponds are discussed in Section 3.2 and Section 3.4. The water quality monitored at non-contact water diversion ditch outlets and in the receiving environment is described in Section 3.5 to Section 3.7. Sediment samples are collected annually at stations IDZ-E-SED and IDZ-W-SED and are discussed in Section 3.7 when they are reported. Sediment samples were last collected July 2025 and the analytical results were presented in Report #82.

3.3 *East Catchment*

The east catchment water quality and flow monitoring results for stations at the East WWTP, the East Sedimentation Pond, and the authorized discharge location (SP-E-OUT) are discussed in this section and are tabulated in Appendix B.

Results are presented for field measurements of influent and effluent quality for the East Sedimentation Pond and the East WWTP collected January 11 - 17 as well as total mercury and methylmercury results for samples collected January 5 (stations SP-E-IN, WWTP-E-IN and WWTP-E-OUT, as discussed in Report #96) and analytical results for samples collected January 12 (stations SP-E-IN, SP-E-OUT, WWTP-E-IN and WWTP-E-OUT).

East WWTP effluent was directed to the East Sedimentation Pond each day during the January 11 - 17 monitoring period, except on January 12 and 13 when East WWTP treated effluent was discharged to Howe Sound from SP-E-OUT (as discussed in Section 1.2), and January 16 and 17 when the East WWTP was not operated. East WWTP effluent flows are tabulated in Table B-6 of Appendix B.

Field measurements for the East WWTP effluent samples (WWTP-E-OUT) collected January 11 - 17 and the analytical sample collected January 12 met treatment MDOs (Appendix B, Table B-1, Table B-3 and Table B-4).

Field measurements collected January 12 and 13 and the effluent sample collected at SP-E-OUT on January 12 met PE-111578 discharge limits and WQGs (Appendix B, Table B-2 through Table B-4).

3.4 West Catchment

The west catchment water quality monitoring results for stations at the West Sedimentation Pond, the 2700GPM TSS settling system, and the authorized discharge location (SP-W-OUT) are discussed in this section and are tabulated in Appendix C. Operation of the West WWTP is suspended (refer to Section 1.1) and monitoring results are therefore not available for the stations at this facility.

As discussed in Section 1.2, a total of 14,731 m³ of clarified sedimentation pond effluent from the 2700GPM TSS Settling System was intermittently discharged to Howe Sound from SP-W-OUT during the monitoring period (January 11 - 17).

Field measurements of influent and effluent quality for the West Sedimentation Pond and the 2700GPM TSS settling system collected January 11 - 17 and analytical samples collected January 12 (stations SP-W-IN, SP-W-OUT, 2700GPM-IN, W2700T1-OUT, W2700T2-OUT and W2700T3-OUT) were available at the time of reporting (Appendix C, Table C-1 through Table C-4). Field measurements collected at SP-W-OUT January 11 - 17 and the January 12 SP-W-OUT analytical samples met PE-111578 discharge limits and WQGs.

3.5 Non-Contact Water Diversion Ditch Outlets

Analytical results were not available at the time of reporting for non-contact water diversion ditch outlet monitoring stations.

3.6 Freshwater and Estuarine Water Receiving Environment

Analytical results were available at the time of reporting for freshwater and estuarine water samples collected at the Mill Creek estuary, mid-stream and background stations (SW-03, SW-02 and SW-07, respectively) as well as near the mouth of Woodfibre Creek and East Creek (stations SW-01 and SW-04, respectively) on January 5 (as discussed in Report #96). The analytical results, field parameters, and WQGs are summarized in Appendix D (freshwater) and Appendix E (estuarine water).

Parameter concentrations met WQGs except field pH, total aluminum and dissolved copper in some samples (Appendix D, Table D-1 and Appendix E, Table E-1). Field pH at the background station in Mill Creek (pH 6.3) and in the Mill Creek estuary (pH 6.5) on January 5 was below the lower range of the WQG (pH 6.5 for freshwater and pH 7.0 for estuarine water). Total aluminum was above the long-term WQG in samples collected from Woodfibre Creek (0.154 mg/L), the mid-stream and background stations in Mill Creek (0.160 and 0.113 mg/L, respectively), and East Creek (0.214 mg/L). Dissolved copper was above the short- and long-term WQGs in samples collected from the background station in Mill Creek (0.00042 mg/L) and East Creek (0.00062 mg/L) and was above the long-term WQG in the sample collected from mid-stream Mill Creek (0.00036 mg/L).

The field pH values and the total aluminum and dissolved copper concentrations observed at downstream stations (SW-01, SW-02, SW-03, and SW-04) are within ranges observed in the pre-construction baseline monitoring program (pH 5.2 to 8.4 in Mill Creek, 0.0113 to 0.323 mg/L for total aluminum and 0.00012 to 0.00105 mg/L for dissolved copper) or within ranges observed at background stations for the freshwater and estuarine water receiving environment (pH 5.4 to 8.1 in Mill Creek, 0.0239 to 0.411 mg/L for total aluminum and <0.00020 to 0.00137 mg/L for dissolved copper).

3.7 Marine Water Receiving Environment

Dioxins and furans results were available at the time of reporting for marine water samples collected at 0.5 and 2 m below the water surface and 2 m above the seafloor on December 6 (stations IDZ-W1, IDZ-W2 and WQR2), as discussed in Report #93, and December 12 (stations IDZ-E1, IDZ-E2 and WQR1), as discussed in Report #94. The lower and upper bound PCDD/F TEQ concentrations measured in these samples ranged from 0.00155 to 0.334 pg/L and from 0.797 to 1.86 pg/L, respectively. The lower and upper bound PCDD/F TEQ concentrations were within the concentration ranges observed in the pre-construction baseline monitoring program (0 to 2.64 pg/L and 0 to 7.06 pg/L, respectively) or within ranges observed at marine reference stations (0 to 0.941 pg/L and 0.499 to 5.65 pg/L, respectively). Results are tabulated in Appendix F, Table F-1.

3.8 Quality Control

This section presents the results of the quality control (QC) evaluation for the PE-111578 weekly report (Table 4). The evaluation includes a review of field and lab QC, completeness of the weekly report (*e.g.*, pending data), completeness of the monitoring program, confirmation of recordkeeping, evaluation of compliance and review of water management activities. Items flagged for follow-up in Section 3 are also tracked in Table 4. Any items flagged for follow-up are carried forward to future reports until they are closed.

Table 4:
Weekly Report QC Evaluations and Ongoing Items

QC Procedure	Observation	Investigation/Resolution
Reporting Period (January 11 - 17, Report #97)		
Authorized Works and Monitoring Program Evaluation	The authorized works and monitoring stations have not been established as described in PE-111578.	The PE-111578 authorized works for water management have been constructed, except for some of the conveyance ditches, which require completion of site grading prior to installation. Sumps, pumps and hoses are used for temporary conveyance until the ditches are completed. The lower reach of East Creek was temporarily diverted through Outfall 11 from September 17, 2024 to November 18, 2025. As November 19, 2025, East Creek flows have been returned to the lower Channel that discharges to Howe Sound through the Outfall 12 culverts (OUT-12). The culvert at OUT-01 is being replaced and diversion water flows to OUT-01 have been redirected to OUT-02. All monitoring stations have been established except at SP-E-IN-1, SP-E-IN-2, SP-W-IN-1 and SP-W-IN-2 where substitute stations are established in lieu of those listed in PE-111578 (refer to Section 2). This item remains open.
Report #97: Pending Data	Analytical results not reported.	Field and analytical results for receiving environment samples collected January 11 and 14 as well as dioxins and furans results for contact and treated water samples collected January 11 and 12 are pending and will be included in future weekly reports when available. This item remains open.
Ongoing Items from Previous Weekly Reports		
Report #92: Pending Data	Analytical results not reported.	Chronic toxicity results for receiving environment samples collected November 25 are pending and will be included in future weekly reports when available. This item remains open.
Report #93: Pending Data	Analytical results not reported.	Previously pending dioxins and furans results for receiving environment samples collected December 6 are included in Report #97. This item is closed.
Report #94: Pending Data	Analytical results not reported.	Previously pending dioxins and furans results for receiving environment samples collected December 12 are included in Report #97. This item is closed.
Report #95: WWTP Performance Evaluation	Total vanadium above the MDO.	The total vanadium concentration was 0.0106 mg/L in the sample collected at WWTP-E-OUT on December 15 and was above the MDO (0.0081 mg/L). Results from samples collected December 23 and 28, January 5 and 12 met the MDO for total vanadium suggesting the December 15 result was an isolated incident. The WWTP treatment performance for total vanadium will be evaluated through the end of January 2026 to determine if this is an isolated event or a recurring issue. This item remains open.
Report #95: Pending Data	Analytical results not reported.	Dioxins and furans results for contact and treated water samples collected December 15, 16, 17, 26 and 28 and receiving environment samples collected December 15 are pending and will be included in future weekly reports when available. This item remains open.
Report #96: Pending Data	Analytical results not reported.	Field and analytical results for non-contact water diversion ditch outlet samples collected January 4 as well as total mercury, methylmercury, dioxins and furans results for receiving environment samples collected January 5 and dioxins and furans results for contact and treated water samples collected January 4 and 5 are pending and will be included in future weekly reports when available. This item remains open.

Notes:

Result QA/QC screening includes the evaluation of field and lab QC results, comparison of total and dissolved metal results and review for modified detection limits.

Pending data are outstanding results from monitoring samples reported in the current or previous weekly reports.

Authorized works and monitoring program evaluation is an assessment of the completeness of the authorized works and monitoring program compared to PE-111578 specified or implied requirements.

WWTP performance evaluation is an assessment of WWTP effluent quality compared to operational MDOs.

Data QC indicates an evaluation of data trends or inter-parameter relationships that suggest a test result may not be representative of water quality at the time of monitoring.

Non-compliant discharge indicates exceedance of a discharge limit or a discharge that bypasses the sedimentation pond discharge location.

Potential project influence is an assessment that water quality at creek and Howe Sound baseline stations are above the baseline concentration range and may indicate project influence at these stations.

4. Closure

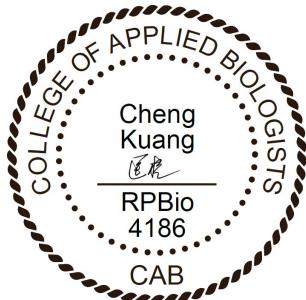
This weekly report is a desktop review by Lorax of the PE-111578 discharge and compliance monitoring program records, reports and results provided by Woodfibre LNG and prime contractor McDermott International and their sub-contractors. The records reviewed and analyzed by Lorax include ALS Environmental laboratory test reports and site reports (from Roe Environmental, LB LNG, McDermott and Woodfibre LNG). Verbal or electronic communications between Lorax, and Roe Environmental, LB LNG, McDermott, and Woodfibre LNG staff are conducted as needed to confirm the information presented in this report.

Regards,

LORAX ENVIRONMENTAL SERVICES LTD.



Holly Pelletier, B.Sc., GIT.
Environmental Geoscientist



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Appendix A: Figures and Site Images





Figure 2: East Catchment contact water management facilities (January 11 - 17).



Figure 3: West Catchment contact water management facilities (January 11 - 17).

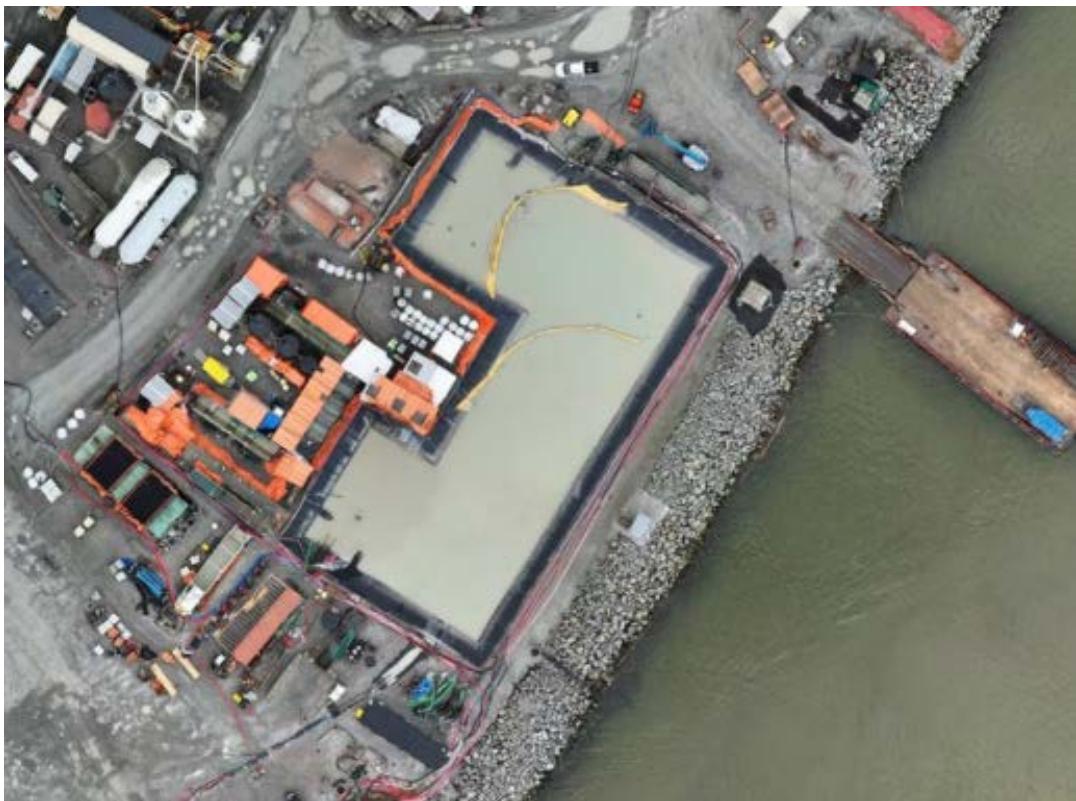


Figure 4: Aerial view of the East Sedimentation Pond (January 13, 2026). The East WWTP is located on the left side of the pond.

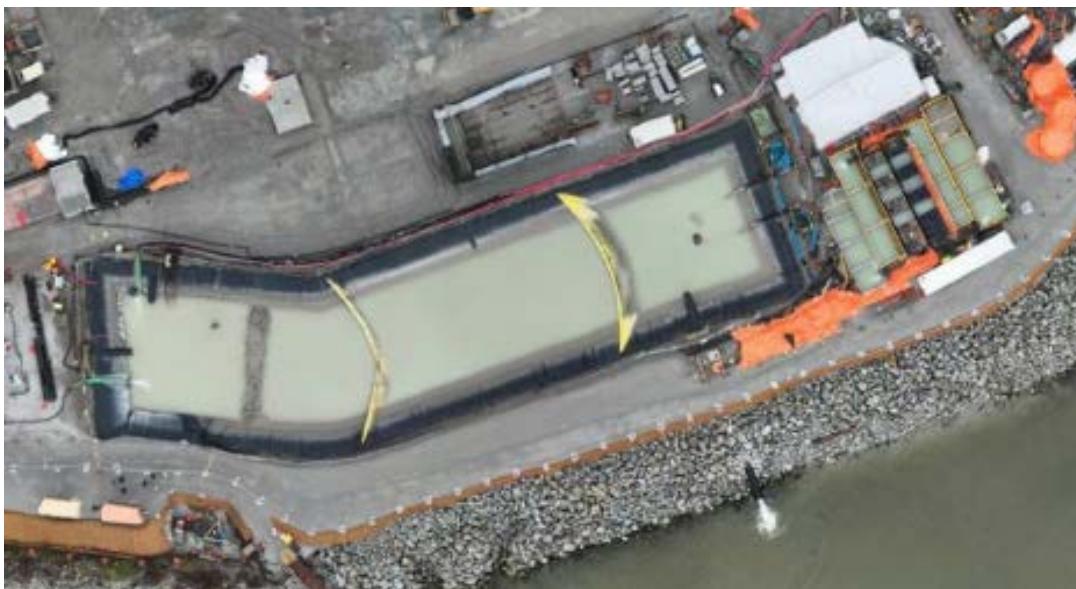


Figure 5: Aerial view of the West Sedimentation Pond (January 13, 2026).

Appendix B:
East Catchment Monitoring Results

Table B-1:
East WWTP Influent and Effluent Analytical Results Received at the Time of Reporting.

Parameter	Unit	Lowest Applicable Guideline ¹		PE-111578 Discharge Limit	Station WWTP-E-IN	Station WWTP-E-OUT		
					Influent	Effluent		
		VA26A0603-002			VA26A0603-003	VA26A0603-003		
		2026-01-12 16:42		2026-01-12 16:51				
General Parameters								
pH - Field	pH units	- ²	-	5.5 - 9.0	7.8	6.7		
Specific Conductivity - Field	µS/cm	-	-	-	196	589		
Temperature - Field	°C	-	-	-	7.2	7.2		
Salinity - Field	ppt	-	-	-	0.09	0.29		
Turbidity - Field	NTU	-	-	-	236.09	5.01		
TSS	mg/L	-	-	25 or 75 ⁶	303	<3.0		
Dissolved Oxygen - Field	mg/L	≥8	-	-	12.61	12.49		
Total Hardness	mg/L	-	-	-	95.7	38.9		
Dissolved Hardness	mg/L	-	-	-	44.9	39		
Anions and Nutrients								
Sulphate	mg/L	-	-	-	49	189		
Chloride	mg/L	-	-	-	1.34	1.74		
Fluoride	mg/L	-	1.5	-	0.029	0.047		
Ammonia (N-NH ₃)	mg/L	4.7-29 ³	31-191 ³	-	0.0089	0.0073		
Nitrite (N-NO ₂)	mg/L	-	-	-	0.0038	0.0037		
Nitrate (N-NO ₃)	mg/L	3.7	339	-	0.124	0.0912		
Total Organic Carbon (TOC)	mg/L	-	-	-	2.6	0.76		
Dissolved Organic Carbon (DOC)	mg/L	-	-	-	1.02	0.78		
Total Metals								
Aluminum, total (T-Al)	mg/L	-	-	-	18.4	0.223		
Antimony, total (T-Sb)	mg/L	-	0.27 ⁴	-	0.00044	0.00042		
Arsenic, total (T-As)	mg/L	0.0125	-	-	0.00257	0.00056		
Barium, total (T-Ba)	mg/L	-	-	-	0.139	0.00387		
Beryllium, total (T-Be)	mg/L	0.1	-	-	0.000297	<0.000020		
Boron, total (T-B)	mg/L	1.2	-	-	0.016	0.024		
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	0.0000931	<0.0000050		
Chromium, total (T-Cr)	mg/L	-	-	-	0.00617	0.00051		
Cobalt, total (T-Co)	mg/L	-	-	-	0.00551	<0.00010		
Copper, total (T-Cu)	mg/L	- ²	- ²	0.0043	0.0141	0.00066		
Iron, total (T-Fe)	mg/L	-	-	-	15.4	<0.010		
Lead, total (T-Pb)	mg/L	- ²	- ²	0.0035	0.00529	<0.000050		
Manganese, total (T-Mn)	mg/L	-	-	-	0.602	0.00149		
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.00981	0.0127		
Nickel, total (T-Ni)	mg/L	0.0083	-	-	0.00435	<0.00050		
Selenium, total (T-Se)	mg/L	0.002	-	-	0.000113	0.000149		
Silver, total (T-Ag)	mg/L	0.0005	0.0037	-	0.000023	<0.000010		
Thallium, total (T-Tl)	mg/L	-	-	-	0.000037	<0.000010		
Uranium, total (T-U)	mg/L	-	-	-	0.00272	0.000781		
Vanadium, total (T-V)	mg/L	- ²	-	0.0081	0.0256	0.00259		
Zinc, total (T-Zn)	mg/L	- ²	- ²	0.0133	0.0694	<0.0030		
Hexavalent Chromium, total	mg/L	0.0015	-	-	<0.00050	<0.00050		
Dissolved Metals								
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	0.0000103	<0.0000050		
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00077	0.00074		
Iron, dissolved (D-Fe)	mg/L	-	-	-	0.031	<0.010		
Lead, dissolved (D-Pb)	mg/L	-	-	-	<0.000050	<0.000050		
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.0332	0.00166		
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00050	<0.00050		
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.0632	0.0995		
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00124	0.00245		
Zinc, dissolved (D-Zn)	mg/L	-	-	-	0.0023	0.0019		
Polycyclic Aromatic Hydrocarbons (PAHs)								
Acenaphthene	mg/L	0.006	-	-	-	-		
Acridine	mg/L	-	-	-	-	-		
Anthracene	mg/L	-	-	-	-	-		
Benz(a)anthracene	mg/L	-	-	-	-	-		
Benzo(a)pyrene	mg/L	0.00001	-	-	-	-		
Chrysene	mg/L	0.0001	-	-	-	-		
Fluoranthene	mg/L	-	-	-	-	-		
Fluorene	mg/L	0.012	-	-	-	-		
1-methylnaphthalene	mg/L	0.001	-	-	-	-		
2-methylnaphthalene	mg/L	0.001	-	-	-	-		
Naphthalene	mg/L	0.001	-	-	-	-		
Phenanthrene	mg/L	-	-	-	-	-		
Pyrene	mg/L	-	-	-	-	-		
Quinoline	mg/L	-	-	-	-	-		
Volatile Organic Compounds (VOCs)								
Benzene	mg/L	0.11	-	-	-	-		
Ethylbenzene	mg/L	0.25	-	-	-	-		
Methyl-tert-butyl-ether	mg/L	5	0.44	-	-	-		
Styrene	mg/L	-	-	-	-	-		
Toluene	mg/L	0.215	-	-	-	-		
Total Xylenes	mg/L	-	-	-	-	-		
Chlorobenzene	mg/L	0.025	-	-	-	-		
1,2-Dichlorobenzene	mg/L	0.042	-	-	-	-		

Notes:

East catchment influents were not discharged to Howe Sound. Results above screening values are only highlighted for comparative purposes.

Non-detect results are screened using the detection limit value.

Results **underlined in bold italics** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.

Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.

Results in **orange text** exceed the PE-111578 East Sedimentation Pond Discharge Limit.

The East Catchment intermittently discharged during the monitoring period (January 11 - 17) on January 12 and 13.

¹ The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs for marine waters.

² The WQG was not evaluated for parameters with discharge limits.

³ The BC WQG for total ammonia is salinity, pH and temperature dependent; see Tables 27E and 27F in BC WQG guidance document.

⁴ The working BC WQG for trivalent antimony [SB(III)] is 0.27 mg/L and is applied to total antimony results.

⁵ When MeHg ≤0.5% of total Hg, the BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.

⁶ The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for each day of Wet Conditions and for one day following the end of Wet Conditions.

Table B-2:
East Sedimentation Pond Influent and Effluent Analytical Results Received at the Time of Reporting.

Parameter	Unit	Lowest Applicable Guideline ¹		PE-111578 Discharge Limit	Station SP-E-IN	Station SP-E-OUT
					Influent	Effluent
		Long Term	Short Term		SP-E-IN	SP-E-OUT
General Parameters						
pH - Field	pH units	- ²	-	5.5 - 9.0	7.9	6.7
Specific Conductivity - Field	µS/cm	-	-	-	167	590
Temperature - Field	°C	-	-	-	7.6	7.3
Salinity - Field	ppt	-	-	-	0.08	0.29
Turbidity - Field	NTU	-	-	-	174.36	3.88
TSS	mg/L	-	-	25 or 75 ⁶	191	<3.0
Dissolved Oxygen - Field	mg/L	≥8	-	-	12.56	12.26
Total Hardness	mg/L	-	-	-	77.5	41.2
Dissolved Hardness	mg/L	-	-	-	39.3	45.9
Anions and Nutrients						
Sulphate	mg/L	-	-	-	36.8	188
Chloride	mg/L	-	-	-	1.16	2.31
Fluoride	mg/L	-	1.5	-	0.027	0.046
Ammonia (N-NH ₃)	mg/L	4.7-29 ³	31-191 ³	-	0.0088	0.0062
Nitrite (N-NO ₂)	mg/L	-	-	-	0.0038	0.0036
Nitrate (N-NO ₃)	mg/L	3.7	339	-	0.119	0.0941
Total Organic Carbon (TOC)	mg/L	-	-	-	1.77	0.71
Dissolved Organic Carbon (DOC)	mg/L	-	-	-	0.84	0.59
Total Metals						
Aluminum, total (T-Al)	mg/L	-	-	-	12	0.238
Antimony, total (T-Sb)	mg/L	-	0.27 ⁴	-	0.00048	0.00043
Arsenic, total (T-As)	mg/L	0.0125	-	-	0.00212	0.0006
Barium, total (T-Ba)	mg/L	-	-	-	0.0962	0.0047
Beryllium, total (T-Be)	mg/L	0.1	-	-	0.000202	<0.000020
Boron, total (T-B)	mg/L	1.2	-	-	0.016	0.024
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	0.0000843	<0.0000050
Chromium, total (T-Cr)	mg/L	-	-	-	0.00485	0.00058
Cobalt, total (T-Co)	mg/L	-	-	-	0.00382	<0.00010
Copper, total (T-Cu)	mg/L	- ²	- ²	0.0043	0.0109	0.0006
Iron, total (T-Fe)	mg/L	-	-	-	10.3	0.016
Lead, total (T-Pb)	mg/L	- ²	- ²	0.0035	0.00294	0.000062
Manganese, total (T-Mn)	mg/L	-	-	-	0.399	0.00216
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.00791	0.0125
Nickel, total (T-Ni)	mg/L	0.0083	-	-	0.00333	<0.00050
Selenium, total (T-Se)	mg/L	0.002	-	-	0.00011	0.000189
Silver, total (T-Ag)	mg/L	0.0005	0.0037	-	0.000019	<0.000010
Thallium, total (T-Tl)	mg/L	-	-	-	0.000023	<0.000010
Uranium, total (T-U)	mg/L	-	-	-	0.00251	0.000785
Vanadium, total (T-V)	mg/L	- ²	-	0.0081	0.0182	0.00259
Zinc, total (T-Zn)	mg/L	- ²	- ²	0.0133	0.081	<0.0030
Hexavalent Chromium, total	mg/L	0.0015	-	-	<0.00050	<0.00050
Dissolved Metals						
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	0.0000111	<0.0000050
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00056	0.00051
Iron, dissolved (D-Fe)	mg/L	-	-	-	0.019	<0.010
Lead, dissolved (D-Pb)	mg/L	-	-	-	<0.000050	<0.000050
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.0249	0.00211
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.000050	<0.00050
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.052	0.12
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00113	0.00229
Zinc, dissolved (D-Zn)	mg/L	-	-	-	0.0167	0.0022
Polycyclic Aromatic Hydrocarbons (PAHs)						
Acenaphthene	mg/L	0.006	-	-	-	<0.000010
Acridine	mg/L	-	-	-	-	<0.000010
Anthracene	mg/L	-	-	-	-	<0.000010
Benz(a)anthracene	mg/L	-	-	-	-	<0.000010
Benzo(a)pyrene	mg/L	0.00001	-	-	-	<0.0000050
Chrysene	mg/L	0.0001	-	-	-	<0.000010
Fluoranthene	mg/L	-	-	-	-	<0.000010
Fluorene	mg/L	0.012	-	-	-	<0.000010
1-methylnaphthalene	mg/L	0.001	-	-	-	<0.000010
2-methylnaphthalene	mg/L	0.001	-	-	-	<0.000010
Naphthalene	mg/L	0.001	-	-	-	<0.000050
Phenanthrene	mg/L	-	-	-	-	<0.000020
Pyrene	mg/L	-	-	-	-	<0.000010
Quinoline	mg/L	-	-	-	-	<0.000050
Volatile Organic Compounds (VOCs)						
Benzene	mg/L	0.11	-	-	-	<0.00050
Ethylbenzene	mg/L	0.25	-	-	-	<0.00050
Methyl-tert-butyl-ether	mg/L	5	0.44	-	-	<0.00050
Styrene	mg/L	-	-	-	-	<0.00050
Toluene	mg/L	0.215	-	-	-	<0.00040
Total Xylenes	mg/L	-	-	-	-	<0.00050
Chlorobenzene	mg/L	0.025	-	-	-	<0.00050
1,2-Dichlorobenzene	mg/L	0.042	-	-	-	<0.00050

Notes:

East catchment influents were not discharged to Howe Sound. Results above screening values are only highlighted for comparative purposes.

Non-detect results are screened using the detection limit value.

Results **underlined in bold italics** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.

Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.

Results in **orange text** exceeded the PE-111578 East Sedimentation Pond Discharge Limit.

The East Catchment intermittently discharged during the monitoring period (January 11 - 17) on January 12 and 13.

¹ The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs for marine waters.² The WQG was not evaluated for parameters with discharge limits.³ The BC WQG for total ammonia is salinity, pH and temperature dependent; see Tables 27E and 27F in BC WQG guidance document.⁴ The working BC WQG for trivalent antimony [SB(III)] is 0.27 mg/L and is applied to total antimony results.⁵ When MeHg ≤0.5% of total Hg, the BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.⁶ The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for each day of Wet Conditions and for one day following the end of Wet Conditions.

Table B-3:
East Catchment Methylmercury and Corresponding Total Mercury Results Received at the Time of Reporting.

Parameter					Total Methylmercury	Total Mercury
Unit					µg/L	µg/L
Lowest Applicable Guideline¹					0.0001 ²	0.00531-0.016 ^{3,4}
Station	Water Type	Sample ID	Lab ID	Sampling Date		
Influent						
SP-E-IN	Influent	SP-E-IN	VA26A0123-001	2026-01-05	0.000059	0.00976
SP-E-IN	Influent	SP-E-IN	VA26A0603-001	2026-01-12	<u>0.000116</u>	<u>0.00817</u>
WWTP-E-IN	Influent	WWTP-E-IN	VA26A0123-002	2026-01-05	<u>0.00124</u>	<u>0.0387</u>
WWTP-E-IN	Influent	WWTP-E-IN	VA26A0603-002	2026-01-12	<u>0.000118</u>	<u>0.0116</u>
Effluent						
SP-E-OUT	Effluent	SP-E-OUT	VA26A0603-004	2026-01-12	0.000026	0.00143
WWTP-E-OUT	Effluent	WWTP-E-OUT	VA26A0123-003	2026-01-05	0.000022	0.00136
WWTP-E-OUT	Effluent	WWTP-E-OUT	VA26A0603-003	2026-01-12	0.000026	0.00155

Notes:

East catchment influents were not discharged to Howe Sound. Results above screening values are only highlighted for comparative purposes.

Non-detect results are screened using the detection limit value.

Results **underlined in bold italics** exceed the applicable long-term water quality guideline for the protection of marine aquatic life.

¹ The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.

² From BC Ambient Water Quality Guidelines for Mercury Overview Report. The methylmercury concentration threshold of 0.0001 µg/L (0.1 ng/L) is indicated as a WQG for the protection of wildlife and is set at a concentration that protects fish from mercury bioaccumulation to a level that may harm wildlife that consume fish.

³ CCME guideline for total mercury = 0.016 µg/L.

⁴ When MeHg ≤ 0.5% of total Hg, BC WQG = 0.02 µg/L. When MeHg > 0.5% of total Hg, BC WQG = 0.0001/(MeHg/Total Hg). Detection limit values are used to calculate the WQG for result reported as not detected.

Table B-4:
East Catchment Field Measurements Collected During the Monitoring Period (January 11 - 17).

Parameter	Temp.	Dissolved Oxygen (DO)	Salinity	Turbidity	Estimated TSS ³	pH	Specific Conductivity	Visibility of Sheen
Unit	°C	mg/L	ppt	NTU	mg/L	s.u.	µS/cm	
PE-111578 Discharge Limit	-	-	-	-	25 or 75 ⁶	5.5 - 9.0	-	-
Lowest Applicable Guideline¹	-	≥8	-	-	- ²	- ²	-	-
Station ID	Water Type	Date						
Influent ⁴								
SP-E-IN	Influent	2026-01-11 13:13	5.3	13.09	0.23	285.40	<u>215.9</u>	6.7
SP-E-IN	Influent	2026-01-12 12:44	6.7	12.80	0.10	213.30	<u>162.1</u>	7.2
SP-E-IN	Influent	2026-01-12 16:25	7.6	12.56	0.08	174.36	<u>133.0</u>	7.9
SP-E-IN	Influent	2026-01-13 8:33	6.9	12.50	0.07	192.93	<u>146.9</u>	7.4
SP-E-IN	Influent	2026-01-14 8:57	7.0	12.45	0.30	10.80	11.1	7.3
SP-E-IN	Influent	2026-01-15 11:43	8.4	12.56	0.28	4.13	6.1	7.0
SP-E-IN	Influent	2026-01-16 13:19	7.2	12.53	0.07	98.83	<u>76.7</u>	7.6
SP-E-IN	Influent	2026-01-17 13:10	6.3	12.38	0.06	59.53	<u>47.4</u>	8.5
WWTP-E-IN	Influent	2026-01-11 13:08	5.6	13.09	0.17	285.03	<u>215.6</u>	7.0
WWTP-E-IN	Influent	2026-01-12 8:57	6.8	12.88	0.08	598.94	<u>449.7</u>	6.6
WWTP-E-IN	Influent	2026-01-12 16:42	7.2	12.61	0.09	236.09	<u>179.1</u>	7.8
WWTP-E-IN	Influent	2026-01-13 8:38	7.0	12.99	0.08	208.88	<u>158.8</u>	7.4
WWTP-E-IN	Influent	2026-01-14 9:02	6.4	12.43	0.22	53.53	<u>42.9</u>	6.6
WWTP-E-IN	Influent	2026-01-15 11:50	7.0	12.65	0.24	40.35	<u>33.1</u>	6.5
WWTP-E-IN	Influent	2026-01-16 13:27	12	10.46	0.25	28.97	24.6	7.1
Effluent ⁵								
SP-E-OUT	Effluent	2026-01-12 17:29	7.3	12.26	0.29	3.88	5.9	6.7
SP-E-OUT	Effluent	2026-01-12 17:31	7.0	12.34	0.29	1.45	4.1	6.8
SP-E-OUT ⁷	Effluent	2026-01-13 8:44 ⁷	7.5	12.28	0.45	1.39	4.0	7.4
WWTP-E-OUT	Effluent	2026-01-11 13:10	5.6	13.16	0.45	5.34	7.0	6.9
WWTP-E-OUT	Effluent	2026-01-12 8:53	7.2	13.05	0.48	3.06	5.3	6.0
WWTP-E-OUT	Effluent	2026-01-12 16:51	7.2	12.49	0.29	5.01	6.7	6.7
WWTP-E-OUT	Effluent	2026-01-13 8:37	7.5	13.00	0.44	5.13	6.8	7.3
WWTP-E-OUT	Effluent	2026-01-14 9:01	7.1	12.82	0.26	1.28	4.0	6.6
WWTP-E-OUT	Effluent	2026-01-15 11:47	7.9	12.73	0.28	2.09	4.6	6.8
							574	No

Notes:

West catchment influents for January 11 - 17 were not discharged to Howe Sound. Results above screening values are highlighted for comparative purposes.

Results **underlined in bold italics** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.

Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.

Results in **orange text** exceed the PE-111578 East Sedimentation Pond Discharge Limit.

¹ The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.

² The WQG was not evaluated for parameters with discharge limits.

³ TSS concentration is estimated from field turbidity measurements using a site-specific relationship TSS = 0.7458 * [turbidity as NTU] + 3.

⁴ Daily field measurements for station SP-E-IN were collected from cell 1 of the East Sedimentation Pond. Daily field measurements for station WWTP-E-IN were not collected on January 17 as the East WWTP was not operational at the time of monitoring.

⁵ There was no discharge at the authorized discharge location (SP-E-OUT) on January 11 nor January 14 – 17, therefore daily field measurements for SP-E-OUT were not collected on those days. Daily field measurements for station WWTP-E-OUT were not collected on January 16 and 17 as the East WWTP was not operational at the time of monitoring.

⁶The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for each day of Wet Conditions and for one day following the end of Wet Conditions.

⁷ There was no discharge at the authorized discharge location (SP-E-OUT) at the time of monitoring on January 13. Field parameters were collected from residual water in the outfall structure.

Table B-6:
East Catchment Daily Discharge Volumes for the Monitoring Period (January 11 - 17).

	East Sedimentation Pond Effluent	Transfer to West Sedimentation Pond	East WWTP Treated Effluent (Station WWTP-E-OUT) ²	Discharge to Howe Sound (Station SP-E-OUT)
Units	m ³	m ³	m ³	m ³
PE-111578 Discharge Limit	-	-	1100	- ¹
Date				
2026-01-11	0	0	483	0
2026-01-12	0	0	425	122
2026-01-13	0	0	483	82
2026-01-14	0	0	650	0
2026-01-15	0	0	418	0
2026-01-16	0	0	0	0
2026-01-17	0	0	0	0

Notes:

Results in orange text exceed the PE-111578 East Sedimentation Pond Discharge Limit.

¹ As noted in PE-111578 Condition 2.1.4, the annual average authorized discharge rate from the East Sedimentation Pond to Howe Sound was set to 650 m³/day for the purpose of calculating discharge fees as required by the Permit and Approval Fees and Charges Regulation. Therefore, the annual average authorized discharge rate is not evaluated as a discharge limit.

² East WWTP treated effluent was recirculated to the East Sedimentation Pond.

Appendix C:
West Catchment Monitoring Results

Table C-1:
West 2700GPM TSS Settling System Influent and Effluent Analytical Results Received at the Time of Reporting.

Parameter	Unit	Lowest Applicable Guideline ¹		PE-111578 Discharge Limit	Station 2700GPM-IN	Station W2700T1-OUT	Station W2700T2-OUT	Station W2700T3-OUT
					Influent	Effluent	Effluent	Effluent
		2700GPM-IN	W2700T1-OUT		W2700T2-OUT	W2700T3-OUT	W2700T3-OUT	W2700T3-OUT
Parameter	Unit	Long Term	Short Term	PE-111578 Discharge Limit	2026-01-11 14:40	2026-01-11 10:32	2026-01-11 10:13	2026-01-11 12:16
General Parameters								
pH - Field	pH units	- ²	-	5.5 - 9.0	7.9	7.5	7.9	7.6
Specific Conductivity - Field	µS/cm	-	-	-	261	255	256	241
Temperature - Field	°C	-	-	-	5.5	6.0	6.2	6.0
Salinity - Field	ppt	-	-	-	0.12	0.12	0.12	0.11
Turbidity - Field	NTU	-	-	-	243.15	4.88	5.28	5.8
TSS	mg/L	-	-	25 or 75 ⁶	298	3.9	3.1	3.3
Dissolved Oxygen - Field	mg/L	≥8	-	-	12.61	12.11	11.94	12.03
Total Hardness	mg/L	-	-	-	106	47.4	47.8	49.5
Dissolved Hardness	mg/L	-	-	-	56.7	45.6	46.1	45.7
Anions and Nutrients								
Sulphate	mg/L	-	-	-	61.7	48.2	48	44.9
Chloride	mg/L	-	-	-	4.93	6.63	6.68	6.23
Fluoride	mg/L	-	1.5	-	0.064	0.076	0.078	0.076
Ammonia (N-NH ₃)	mg/L	4.7-12 ³	31-78 ³	-	0.0121	0.0058	0.0064	<0.0050
Nitrite (N-NO ₂)	mg/L	-	-	-	0.0043	0.0033	0.0032	0.0029
Nitrate (N-NO ₃)	mg/L	3.7	339	-	0.165	0.182	0.178	0.178
Total Organic Carbon (TOC)	mg/L	-	-	-	4.52	2.23	2.45	2.68
Dissolved Organic Carbon (DOC)	mg/L	-	-	-	2.26	2.3	2.13	2.49
Total Metals								
Aluminum, total (T-Al)	mg/L	-	-	-	18.6	0.255	0.218	0.273
Antimony, total (T-Sb)	mg/L	-	0.27 ⁴	-	0.00059	0.00056	0.00057	0.00054
Arsenic, total (T-As)	mg/L	0.0125	-	-	0.00312	0.00129	0.00133	0.0013
Barium, total (T-Ba)	mg/L	-	-	-	0.151	0.00658	0.00654	0.00552
Beryllium, total (T-Be)	mg/L	0.1	-	-	0.00028	<0.000020	<0.000020	<0.000020
Boron, total (T-B)	mg/L	1.2	-	-	0.019	<0.010	<0.010	<0.010
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	0.000125	<0.0000100	<0.0000100	<0.0000100
Chromium, total (T-Cr)	mg/L	-	-	-	0.00572	<0.00050	<0.00050	<0.00050
Cobalt, total (T-Co)	mg/L	-	-	-	0.00515	<0.00010	<0.00010	<0.00010
Copper, total (T-Cu)	mg/L	- ²	- ²	0.0043	0.0177	0.00099	0.00099	0.00108
Iron, total (T-Fe)	mg/L	-	-	-	14.8	0.125	0.105	0.129
Lead, total (T-Pb)	mg/L	- ²	- ²	0.0035	0.00774	0.000235	0.000226	0.000274
Manganese, total (T-Mn)	mg/L	-	-	-	0.632	0.00863	0.00531	0.0136
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.0102	0.00837	0.00889	0.00824
Nickel, total (T-Ni)	mg/L	0.0083	-	-	0.004	<0.00050	<0.00050	<0.00050
Selenium, total (T-Se)	mg/L	0.002	-	-	0.00009	0.000055	0.000071	0.00006
Silver, total (T-Ag)	mg/L	0.0005	0.0037	-	0.000032	<0.000010	<0.000010	<0.000010
Thallium, total (T-Tl)	mg/L	-	-	-	0.000054	0.000012	0.000011	0.000012
Uranium, total (T-U)	mg/L	-	-	-	0.00461	0.004	0.00416	0.00399
Vanadium, total (T-V)	mg/L	- ²	-	0.0081	0.0244	0.00104	0.0012	0.00122
Zinc, total (T-Zn)	mg/L	- ²	- ²	0.0133	0.0721	<0.0030	<0.0030	<0.0030
Hexavalent Chromium, total	mg/L	0.0015	-	-	<0.00050	<0.00050	<0.00050	<0.00050
Dissolved Metals								
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000100	<0.0000050	<0.0000050	<0.0000100
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00117	0.00091	0.00077	0.0009
Iron, dissolved (D-Fe)	mg/L	-	-	-	0.061	0.014	0.013	0.021
Lead, dissolved (D-Pb)	mg/L	-	-	-	0.000069	0.000058	<0.000050	0.000062
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.0459	0.00412	0.00187	0.00967
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00050	<0.00050	<0.00050	<0.00050
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.0834	0.0651	0.0648	0.0638
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00131	0.00075	0.00095	0.00092
Zinc, dissolved (D-Zn)	mg/L	-	-	-	0.0034	0.0011	<0.0010	0.0011
Polycyclic Aromatic Hydrocarbons (PAHs)								
Acenaphthene	mg/L	0.006	-	-	0.000014	-	-	-
Acridine	mg/L	-	-	-	<0.000040	-	-	-
Anthracene	mg/L	-	-	-	<0.000020	-	-	-
Benz(a)anthracene	mg/L	-	-	-	0.000036	-	-	-
Benzo(a)pyrene	mg/L	0.00001	-	-	0.000406	-	-	-
Chrysene	mg/L	0.0001	-	-	0.000034	-	-	-
Fluoranthene	mg/L	-	-	-	0.000081	-	-	-
Fluorene	mg/L	0.012	-	-	0.000014	-	-	-
1-methylnaphthalene	mg/L	0.001	-	-	0.000013	-	-	-
2-methylnaphthalene	mg/L	0.001	-	-	0.000018	-	-	-
Naphthalene	mg/L	0.001	-	-	<0.000050	-	-	-
Phenanthrene	mg/L	-	-	-	0.000072	-	-	-
Pyrene	mg/L	-	-	-	0.000104	-	-	-
Quinoline	mg/L	-	-	-	<0.000050	-	-	-
Volatile Organic Compounds (VOCs)								
Benzene	mg/L	0.11	-	-	<0.00050	-	-	-
Ethylbenzene	mg/L	0.25	-	-	<0.00050	-	-	-
Methyl-tert-butyl-ether	mg/L	5	0.44	-	<0.00050	-	-	-
Styrene	mg/L	-	-	-	<0.00050	-	-	-
Toluene	mg/L	0.215	-	-	<0.00040	-	-	-
Total Xylenes	mg/L	-	-	-	<0.00050	-	-	-
Chlorobenzene	mg/L	0.025	-	-	<0.00050	-	-	-
1,2-Dichlorobenzene	mg/L	0.042	-	-	<0.00050	-	-	-

Notes:

West catchment influents were not discharged to Howe Sound. Influent results above screening values are only highlighted for comparative purposes.

Non-detect results are screened using the detection limit value.

Results **underlined in bold italics** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.

Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.

Results in **orange text** exceed the PE-111578 West Sedimentation Pond Discharge Limit.

The West Catchment intermittently discharged during the monitoring period (January 11 - 17) from January 11 to 14.</div

Table C-2:
West Sedimentation Pond Influent and Effluent Analytical Results Received at the Time of Reporting.

Parameter	Unit	Lowest Applicable Guideline ¹		PE-111578 Discharge Limit	Station SP-W-IN	Station SP-W-OUT	
					Influent	Effluent	
		SP-W-IN	SP-W-OUT		VA26A0564-001	VA26A0564-006	
		Long Term	Short Term			2026-01-11 15:28	
						2026-01-11 11:20	
General Parameters							
pH - Field	pH units	- ²	-	5.5 - 9.0	7.4	7.7	
Specific Conductivity - Field	µS/cm	-	-	-	302	252	
Temperature - Field	°C	-	-	-	5.4	5.9	
Salinity - Field	ppt	-	-	-	0.14	0.12	
Turbidity - Field	NTU	-	-	-	266.17	7.62	
TSS	mg/L	-	-	25 or 75 ⁶	194	3.3	
Dissolved Oxygen - Field	mg/L	≥8	-	-	12.66	11.95	
Total Hardness	mg/L	-	-	-	110	48.6	
Dissolved Hardness	mg/L	-	-	-	63.6	45.9	
Anions and Nutrients							
Sulphate	mg/L	-	-	-	81.4	47.4	
Chloride	mg/L	-	-	-	4.42	6.5	
Fluoride	mg/L	-	1.5	-	0.057	0.074	
Ammonia (N-NH ₃)	mg/L	7.2-12 ³	48-78 ³	-	0.0391	0.0066	
Nitrite (N-NO ₂)	mg/L	-	-	-	0.0039	0.0034	
Nitrate (N-NO ₃)	mg/L	3.7	339	-	0.175	0.176	
Total Organic Carbon (TOC)	mg/L	-	-	-	3.53	2.53	
Dissolved Organic Carbon (DOC)	mg/L	-	-	-	1.59	2.3	
Total Metals							
Aluminum, total (T-Al)	mg/L	-	-	-	17.5	0.336	
Antimony, total (T-Sb)	mg/L	-	0.27 ⁴	-	0.00051	0.00055	
Arsenic, total (T-As)	mg/L	0.0125	-	-	0.00257	0.00125	
Barium, total (T-Ba)	mg/L	-	-	-	0.147	0.00734	
Beryllium, total (T-Be)	mg/L	0.1	-	-	0.000287	<0.000020	
Boron, total (T-B)	mg/L	1.2	-	-	0.02	<0.010	
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	0.0000938	<0.0000100	
Chromium, total (T-Cr)	mg/L	-	-	-	0.00554	<0.00050	
Cobalt, total (T-Co)	mg/L	-	-	-	0.00496	<0.00010	
Copper, total (T-Cu)	mg/L	- ²	- ²	0.0043	0.013	0.00125	
Iron, total (T-Fe)	mg/L	-	-	-	13.4	0.17	
Lead, total (T-Pb)	mg/L	- ²	- ²	0.0035	0.00508	0.000362	
Manganese, total (T-Mn)	mg/L	-	-	-	0.625	0.0101	
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.0103	0.00792	
Nickel, total (T-Ni)	mg/L	0.0083	-	-	0.00398	<0.00050	
Selenium, total (T-Se)	mg/L	0.002	-	-	0.000078	0.000064	
Silver, total (T-Ag)	mg/L	0.0005	0.0037	-	0.000023	<0.000010	
Thallium, total (T-Tl)	mg/L	-	-	-	0.00004	0.00001	
Uranium, total (T-U)	mg/L	-	-	-	0.00419	0.00388	
Vanadium, total (T-V)	mg/L	- ²	-	0.0081	0.0231	0.00112	
Zinc, total (T-Zn)	mg/L	- ²	- ²	0.0133	0.0589	<0.0030	
Hexavalent Chromium, total	mg/L	0.0015	-	-	<0.00050	<0.00050	
Dissolved Metals							
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	0.0000107	<0.0000050	
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00092	0.00075	
Iron, dissolved (D-Fe)	mg/L	-	-	-	<0.010	<0.010	
Lead, dissolved (D-Pb)	mg/L	-	-	-	<0.000050	<0.000050	
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.0566	0.00426	
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00050	<0.00050	
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.0987	0.0627	
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00124	0.00077	
Zinc, dissolved (D-Zn)	mg/L	-	-	-	0.0018	0.0023	
Polycyclic Aromatic Hydrocarbons (PAHs)							
Acenaphthene	mg/L	0.006	-	-	-	<0.000010	
Acridine	mg/L	-	-	-	-	<0.000010	
Anthracene	mg/L	-	-	-	-	<0.000010	
Benz(a)anthracene	mg/L	-	-	-	-	<0.000010	
Benzo(a)pyrene	mg/L	0.00001	-	-	-	<0.0000050	
Chrysene	mg/L	0.0001	-	-	-	<0.000010	
Fluoranthene	mg/L	-	-	-	-	<0.000010	
Fluorene	mg/L	0.012	-	-	-	<0.000010	
1-methylnaphthalene	mg/L	0.001	-	-	-	<0.000010	
2-methylnaphthalene	mg/L	0.001	-	-	-	<0.000010	
Naphthalene	mg/L	0.001	-	-	-	<0.000050	
Phenanthrene	mg/L	-	-	-	-	<0.000020	
Pyrene	mg/L	-	-	-	-	<0.000010	
Quinoline	mg/L	-	-	-	-	<0.000050	
Volatile Organic Compounds (VOCs)							
Benzene	mg/L	0.11	-	-	-	<0.00050	
Ethylbenzene	mg/L	0.25	-	-	-	<0.00050	
Methyl-tert-butyl-ether	mg/L	5	0.44	-	-	<0.00050	
Styrene	mg/L	-	-	-	-	<0.00050	
Toluene	mg/L	0.215	-	-	-	<0.00040	
Total Xylenes	mg/L	-	-	-	-	<0.00050	
Chlorobenzene	mg/L	0.025	-	-	-	<0.00050	
1,2-Dichlorobenzene	mg/L	0.042	-	-	-	<0.00050	

Notes:

West catchment influents were not discharged to Howe Sound. Influent results above screening values are only highlighted for comparative purposes.

Non-detect results are screened using the detection limit value.

Results **underlined in bold italics** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.

Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.

Results in **orange text** exceed the PE-111578 West Sedimentation Pond Discharge Limit.

The West Catchment intermittently discharged during the monitoring period (January 11 - 17) from January 11 to 14.

¹ The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs for marine waters.

² The WQG was not evaluated for parameters with discharge limits.

³ The BC WQG for total ammonia is salinity, pH and temperature dependent; see Tables 27E and 27F in BC WQG guidance document.

⁴ The working BC WQG for trivalent antimony [SB(III)] is 0.27 mg/L and is applied to total antimony results.

⁵ When MeHg ≤0.5% of total Hg, the BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.

⁶ The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for each day of Wet Conditions and for one day following the end of Wet Conditions.

Table C-3:
West Catchment Methylmercury and Corresponding Total Mercury Results Received at the Time of Reporting.

Parameter						Total Methylmercury	Total Mercury
Unit						µg/L	µg/L
Lowest Applicable Guideline ¹					0.0001 ²		0.0033-0.014 ^{3,4}
Station	Water Type	Sample ID	Lab ID	Sampling Date			
Influent							
SP-W-IN	Influent	SP-W-IN	VA26A0564-001	2026-01-11	<u>0.000138</u>	<u>0.0160</u>	
2700GPM-IN	Influent	2700GPM-IN	VA26A0564-002	2026-01-11	<u>0.000129</u>	<u>0.0179</u>	
Effluent							
SP-W-OUT	Effluent	SP-W-OUT	VA26A0564-006	2026-01-11	0.000027	0.00166	
W2700T1-OUT	Effluent	W2700T1-OUT	VA26A0564-003	2026-01-11	0.000036	0.00118	
W2700T2-OUT	Effluent	W2700T2-OUT	VA26A0564-004	2026-01-11	0.000029	0.00117	
W2700T3-OUT	Effluent	W2700T3-OUT	VA26A0564-005	2026-01-11	0.000029	0.00138	

Notes:

West catchment influents were not discharged to Howe Sound. Results above screening values are only highlighted for comparative purposes.

Non-detect results are screened using the detection limit value.

Results **underlined in bold italics** exceed the applicable long-term water quality guideline for the protection of marine aquatic life.

¹ The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.

² From BC Ambient Water Quality Guidelines for Mercury Overview Report. The methylmercury concentration threshold of 0.0001 µg/L (0.1 ng/L) is indicated as a WQG for the protection of wildlife and is set at a concentration that protects fish from mercury bioaccumulation to a level that may harm wildlife that consume fish.

³ CCME guideline for total mercury = 0.016 µg/L.

⁴ When MeHg ≤ 0.5% of total Hg, BC WQG = 0.02 µg/L. When MeHg > 0.5% of total Hg, BC WQG = 0.0001/(MeHg/Total Hg). Detection limit values are used to calculate the WQG for result reported as not detected.

Table C-4:
West Catchment Field Measurements Collected During the Monitoring Period (January 11 - 17).

Parameter			Temperature	Dissolved Oxygen (DO)	Salinity	Turbidity	Estimated TSS ³	pH	Specific Conductivity	Visibility of Sheen
Unit			°C	mg/L	ppt	NTU	mg/L	s.u.	µS/cm	
PE-111578 Discharge Limit			-	-	-	-	25 or 75 ⁶	5.5 - 9.0	-	-
Lowest Applicable Guideline ¹			-	≥8	-	-	- ²	- ²	-	-
Station ID	Water Type	Date								
Influent ⁴										
SP-W-IN	Influent	2026-01-11 15:28	5.4	12.66	0.14	266.17	<u>201.5</u>	7.4	302	No
SP-W-IN	Influent	2026-01-12 13:03	6.7	12.70	0.06	283.78	<u>214.6</u>	7.9	126	No
SP-W-IN	Influent	2026-01-13 9:26	6.9	12.41	0.07	76.04	<u>59.7</u>	7.7	154	No
SP-W-IN	Influent	2026-01-14 8:34	6.4	13.17	0.08	34.84	<u>29.0</u>	7.4	160	No
SP-W-IN	Influent	2026-01-15 12:14	7.8	12.09	0.08	2.27	4.7	7.3	162	No
SP-W-IN	Influent	2026-01-16 12:40	6.9	11.44	0.10	6.62	7.9	7.4	211	No
SP-W-IN	Influent	2026-01-17 12:54	6.8	11.83	0.11	25.04	21.7	8.8	225	No
2700GPM-IN	Influent	2026-01-11 14:40	5.5	12.61	0.12	243.15	<u>184.3</u>	7.9	261	No
2700GPM-IN	Influent	2026-01-12 12:59	6.9	12.51	0.05	273.59	<u>207.0</u>	7.4	115	No
2700GPM-IN	Influent	2026-01-13 9:23	7.0	12.66	0.06	52.6	<u>42.2</u>	7.7	135	No
2700GPM-IN	Influent	2026-01-14 8:26	6.6	12.76	0.07	29.89	<u>25.3</u>	7.4	153	No
2700GPM-IN	Influent	2026-01-15 12:10	7.8	12.15	0.08	7.32	8.5	7.2	163	No
2700GPM-IN	Influent	2026-01-16 12:33	7.1	12.54	0.08	3.18	5.4	7.3	164	No
2700GPM-IN	Influent	2026-01-17 13:01	6.8	12.39	0.11	151.99	<u>116.4</u>	8.7	239	No
Effluent ⁵										
SP-W-OUT	Effluent	2026-01-11 10:05	6.9	12.11	0.12	6.20	7.6	7.9	261	No
SP-W-OUT	Effluent	2026-01-11 11:20	5.9	11.95	0.12	7.62	8.7	7.7	252	No
SP-W-OUT	Effluent	2026-01-11 11:21	5.9	11.91	0.12	7.00	8.2	7.6	252	No
SP-W-OUT	Effluent	2026-01-12 10:17	7.0	12.99	0.06	12.31	12.2	7.2	130	No
SP-W-OUT	Effluent	2026-01-13 9:30	7.1	13.41	0.06	7.60	8.7	7.9	123	No
SP-W-OUT	Effluent	2026-01-14 8:50	6.6	12.54	0.07	2.85	5.1	7.5	153	No

Notes:

West catchment influents for January 11 - 17 were not discharged to Howe Sound. Results above screening values are only highlighted for comparative purposes.

Results **underlined in bold italics** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.

Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.

Results in **orange text** exceed the PE-111578 West Sedimentation Pond Discharge Limit.

¹ The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.

² The WQG was not evaluated for parameters with discharge limits.

³ TSS concentration is estimated from field turbidity measurements using a site-specific relationship $TSS = 0.7458 * [\text{turbidity as NTU}] + 3$.

⁴ Daily field measurements for station SP-W-IN were collected from cell 1 of the West Sedimentation Pond.

⁵ As described in Section 1.1, when there is surplus water, West Sedimentation Pond clarified effluent from the individual 2700GPM trains is directed to SP-W-OUT for discharge. 2700GPM clarified effluent from all six trains was intermittently discharged to Howe Sound at the authorized discharge location (SP-W-OUT) during the monitoring period (January 11 - 17) from January 11 to 14. There was no discharge at SP-W-OUT on January 15 to 17, therefore daily field parameters for SP-W-OUT were not collected on those days.

⁶ The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for each day of Wet Conditions and for one day following the end of Wet Conditions.

Table C-5:
West Catchment Daily Discharge Volumes for the Monitoring Period (January 11 - 17).

	West Sedimentation Pond Effluent	West TSS Settling System (2700GPM) Clarified Effluent (Station 2700GPM-OUT) ³	Water Reclaimed for Construction Purposes (Station 2700GPM-OUT)	West WWTP Treated Effluent ¹ (Station WWTP-W-OUT)	Discharge to Howe Sound (Station SP-W-OUT)
Unit	m ³	m ³	m ³	m ³	m ³
PE-111578 Discharge Limit	-	-	-	120	- ²
Date					
2026-01-11	0	4,068	0	0	2,825
2026-01-12	0	5,420	0	0	5,133
2026-01-13	0	4,992	0	0	4,795
2026-01-14	0	4,274	0	0	1,977
2026-01-15	0	2,097	0	0	0
2026-01-16	0	721	0	0	0
2026-01-17	0	1,530	0	0	0

Notes:

Results in orange text exceed the PE-111578 West Sedimentation Pond Discharge Limit.

¹ The West WWTP is not being operated therefore discharges are not expected from this facility.

² As noted in PE-111578 Condition 2.2.4, the annual average authorized discharge rate from the West Sedimentation Pond to Howe Sound was set to 310 m³/day for the purpose of calculating discharge fees as required by the Permit and Approval Fees and Charges Regulation. Therefore, the annual average authorized discharge rate is not evaluated as a discharge limit.

³ Clarified effluent from the 2700GPM TSS settling system is recirculated to the West Sedimentation Pond, discharged to Howe Sound or reclaimed for construction purposes based on operational considerations. Daily discharge volumes from station 2700GPM-OUT are a sum of all active treatment trains.

Appendix D:
Freshwater Receiving Environment Results

Table D-1:
Summary of Freshwater Water Quality Results Received at the Time of Reporting.

Parameter	Unit	Lowest Applicable Guideline ^{1,2}		Station SW-01	Station SW-02	Station SW-07	Station SW-04	
				Woodfibre Creek Lower Reach	Mill Creek Lower Reach	Upstream Mill Creek	East Creek Lower Reach	
				SW-01	SW-02	SW-07	SW-04	
		Long Term		VA26A0129-001	VA26A0129-002	VA26A0129-005	VA26A0129-004	
		Short Term		2026-01-05 10:30	2026-01-05 10:05	2026-01-05 8:56	2026-01-05 9:40	
General Parameters								
pH - Field	pH units	6.5 - 9.0	-	7.1	6.8	6.3	6.9	
Specific Conductivity - Field	µS/cm	-	-	10	13	12	68	
Temperature - Field	°C	-	-	5.3	4.3	4	7.4	
Salinity - Field	ppt	-	-	0	0.01	0	0.03	
Turbidity - Field	NTU	-	-	11.42	1.26	1.13	2.22	
TSS	mg/L	-	-	<3.0	<3.0	<3.0	5.6	
Dissolved Oxygen - Field	mg/L	>=8	>=5	13.06	13.41	13.07	12.05	
Total Hardness	mg/L	-	-	2.25	3.93	3.26	24.7	
Dissolved Hardness	mg/L	-	-	2.35	3.98	3.34	25	
Anions and Nutrients								
Sulphate ²	mg/L	128	-	0.56	2.06	2.04	4.92	
Chloride	mg/L	120	600	<0.50	<0.50	<0.50	3.78	
Fluoride ²	mg/L	-	0.400-0.772	<0.020	<0.020	<0.020	0.099	
Ammonia (N-NH ₃) ²	mg/L	1.90-73.0	20.2-27.2	<0.0050	<0.0050	<0.0050	<0.0050	
Nitrite (N-NO ₂) ²	mg/L	0.0400-0.200	0.12-0.6	<0.0010	<0.0010	<0.0010	<0.0010	
Nitrate (N-NO ₃)	mg/L	3	32.8	0.0367	0.0589	0.0634	0.0237	
Total Organic Carbon (TOC)	mg/L	-	-	3.01	2.02	2.15	2.03	
Total Inorganic Carbon (DOC)	mg/L	-	-	3.00	1.76	1.82	1.87	
Total Metals								
Aluminum, total (T-Al) ²	mg/L	0.0207-0.251	-	0.154	0.160	0.113	0.214	
Antimony, total (T-Sb)	mg/L	0.074	-	<0.00010	<0.00010	<0.00010	0.00034	
Arsenic, total (T-As)	mg/L	0.005	-	<0.00010	<0.00010	<0.00010	0.00045	
Barium, total (T-Ba)	mg/L	1	-	0.00174	0.00283	0.00254	0.00665	
Beryllium, total (T-Be)	mg/L	0.00013	-	<0.000020	<0.000020	<0.000020	<0.000020	
Boron, total (T-B)	mg/L	1.2	29	<0.010	<0.010	<0.010	<0.010	
Cadmium, total (T-Cd) ²	mg/L	0.000036-0.000050	0.00011-0.00051	<0.000050	0.000078	0.000064	0.000087	
Chromium, total (T-Cr) ³	mg/L	0.001	-	<0.00050	<0.00050	<0.00050	<0.00050	
Cobalt, total (T-Co) ²	mg/L	0.000389-0.000778	-	<0.00010	0.00015	0.00013	<0.00010	
Copper, total (T-Cu)	mg/L	-	-	<0.00050	<0.00050	<0.00050	0.00087	
Iron, total (T-Fe)	mg/L	0.3	1	0.037	0.056	0.022	0.112	
Lead, total (T-Pb)	mg/L	-	-	0.000052	<0.000050	<0.000050	0.000053	
Manganese, total (T-Mn) ²	mg/L	0.768	0.816	0.00121	0.00251	0.00136	0.0123	
Molybdenum, total (T-Mo)	mg/L	0.073	46	0.000167	0.000308	0.000248	0.00945	
Nickel, total (T-Ni) ²	mg/L	0.0250	-	<0.00050	<0.00050	<0.00050	<0.00050	
Selenium, total (T-Se)	mg/L	0.001	-	<0.00050	<0.00050	<0.00050	<0.00050	
Silver, total (T-Ag)	mg/L	0.00012	-	<0.000010	<0.000010	<0.000010	<0.000010	
Thallium, total (T-Tl)	mg/L	0.0008	-	<0.000010	<0.000010	<0.000010	<0.000010	
Uranium, total (T-U)	mg/L	0.0085	0.033	0.0005	0.000175	0.000157	0.000264	
Vanadium, total (T-V)	mg/L	0.12	-	<0.00050	<0.00050	<0.00050	<0.00050	
Zinc, total (T-Zn)	mg/L	-	-	<0.0030	<0.0030	<0.0030	<0.0030	
Hexavalent Chromium, total	mg/L	0.001	-	<0.00050	<0.00050	<0.00050	<0.00050	
Dissolved Metals								
Cadmium, dissolved (D-Cd) ²	mg/L	0.000018-0.000076	0.000038-0.00014	<0.000050	0.000071	0.0000105	<0.0000100	
Copper, dissolved (D-Cu) ²	mg/L	0.000200-0.000604	0.000200-0.00232	0.00025	0.00036	0.00042	0.00062	
Iron, dissolved (D-Fe)	mg/L	-	0.35	0.025	0.011	0.01	0.016	
Lead, dissolved (D-Pb) ²	mg/L	0.00144-0.00415	-	<0.000050	<0.000050	<0.000050	<0.000050	
Manganese, dissolved (D-Mn) ²	mg/L	0.310-0.380	1.97	0.00069	0.00084	0.00092	0.00895	
Nickel, dissolved (D-Ni) ²	mg/L	0.000700-0.000800	0.0107-0.0120	<0.00050	<0.00050	<0.00050	<0.00050	
Strontium, dissolved (D-Sr)	mg/L	2.5	-	0.00347	0.00641	0.00546	0.0242	
Vanadium, dissolved (D-V)	mg/L	-	-	<0.00050	<0.00050	<0.00050	<0.00050	
Zinc, dissolved (D-Zn) ²	mg/L	0.00480-0.0128	0.00863-0.0284	0.0011	0.0014	0.0015	0.0018	
Polycyclic Aromatic Hydrocarbons (PAHs)								
Acenaphthene	mg/L	0.0058	-	<0.000010	<0.000010	<0.000010	<0.000010	
Acridine	mg/L	0.003	-	<0.000010	<0.000010	<0.000010	<0.000010	
Anthracene	mg/L	0.000012	-	<0.000010	<0.000010	<0.000010	<0.000010	
Benz(a)anthracene	mg/L	0.000018	-	<0.000010	<0.000010	<0.000010	<0.000010	
Benzo(a)pyrene	mg/L	0.00001	-	<0.000050	<0.000050	<0.000050	<0.000050	
Chrysene	mg/L	-	-	<0.000010	<0.000010	<0.000010	<0.000010	
Fluoranthene	mg/L	0.00004	-	<0.000010	<0.000010	<0.000010	<0.000010	
Fluorene	mg/L	0.003	-	<0.000010	<0.000010	<0.000010	<0.000010	
1-methylnaphthalene	mg/L	-	-	<0.000010	<0.000010	<0.000010	<0.000010	
2-methylnaphthalene	mg/L	-	-	<0.000010	<0.000010	<0.000010	<0.000010	
Naphthalene	mg/L	0.001	0.001	<0.000050	<0.000050	<0.000050	<0.000050	
Phenanthrene	mg/L	0.0003	-	<0.000020	<0.000020	<0.000020	<0.000020	
Pyrene	mg/L	0.00002	-	<0.000010	<0.000010	<0.000010	<0.000010	
Quinoline	mg/L	0.0034	-	<0.000050	<0.000050	<0.000050	<0.000050	
Volatile Organic Compounds (VOCs)								
Benzene	mg/L	0.04	-	<0.00050	<0.00050	<0.00050	<0.00050	
Ethylbenzene	mg/L	0.09	-	<0.00050	<0.00050	<0.00050	<0.00050	
Methyl-tert-butyl-ether	mg/L	10	3.4	<0.00050	<0.00050	<0.00050	<0.00050	
Styrene	mg/L	0.072	-	<0.00050	<0.00050	<0.00050	<0.00050	
Toluene	mg/L	0.0005	-	<0.00040	<0.00040	<0.00040	<0.00040	

Appendix E:
Estuarine Water Receiving Environment Results

Table E-1:
Summary of Mill Creek Estuary Water Quality Results Received at the Time of Reporting.

Parameter	Unit	Lowest Applicable Guideline ¹		Station SW-03
				Mill Creek Estuary
				SW-03
				VA26A0129-003
		Long Term	Short Term	2026-01-05 12:09
General Parameters				
pH - Field	pH units	7.0 - 8.7	-	<u>6.5</u>
Specific Conductivity - Field	µS/cm	-	-	1814
Temperature - Field	°C	-	-	4.8
Salinity - Field	ppt	-	-	0.9
Turbidity - Field	NTU	-	-	1.25
TSS	mg/L	-	-	<3
Dissolved Oxygen - Field	mg/L	>=8	-	13.13
Total Hardness	mg/L	-	-	135
Dissolved Hardness	mg/L	-	-	156
Anions and Nutrients				
Sulphate	mg/L	-	-	55.2
Chloride	mg/L	-	-	368
Fluoride	mg/L	-	1.5	<0.100
Ammonia (N-NH ₃)	mg/L	18 ²	121 ²	<0.0050
Nitrite (N-NO ₂)	mg/L	-	-	<0.0050
Nitrate (N-NO ₃)	mg/L	3.7	339	0.0782
Total Organic Carbon (TOC)	mg/L	-	-	1.88
Total Inorganic Carbon (DOC)	mg/L	-	-	1.74
Total Metals				
Aluminum, total (T-Al)	mg/L	-	-	0.13
Antimony, total (T-Sb)	mg/L	-	0.27	<0.00010
Arsenic, total (T-As)	mg/L	0.0125	-	0.00012
Barium, total (T-Ba)	mg/L	-	-	0.00327
Beryllium, total (T-Be)	mg/L	0.1	-	<0.000020
Boron, total (T-B)	mg/L	1.2	-	0.097
Cadmium, total (T-Cd)	mg/L	0.00012	-	0.0000074
Chromium, total (T-Cr)	mg/L	-	-	<0.00050
Cobalt, total (T-Co)	mg/L	-	-	0.00012
Copper, total (T-Cu)	mg/L	0.002	0.003	<0.00050
Iron, total (T-Fe)	mg/L	-	-	0.038
Lead, total (T-Pb)	mg/L	0.002	0.14	<0.000050
Manganese, total (T-Mn)	mg/L	-	-	0.00191
Molybdenum, total (T-Mo)	mg/L	-	-	0.00057
Nickel, total (T-Ni)	mg/L	0.0083	-	<0.00050
Selenium, total (T-Se)	mg/L	0.002	-	<0.000050
Silver, total (T-Ag)	mg/L	0.0005	0.0037	<0.000010
Thallium, total (T-Tl)	mg/L	-	-	<0.000010
Uranium, total (T-U)	mg/L	-	-	0.000241
Vanadium, total (T-V)	mg/L	0.005	-	<0.00050
Zinc, total (T-Zn)	mg/L	0.01	0.055	<0.0030
Hexavalent Chromium, total	mg/L	0.0015	-	<0.00050
Dissolved Metals				
Cadmium, dissolved (D-Cd)	mg/L	-	-	0.0000095
Copper, dissolved (D-Cu)	mg/L	-	-	0.00045
Iron, dissolved (D-Fe)	mg/L	-	-	0.012
Lead, dissolved (D-Pb)	mg/L	-	-	<0.000050
Manganese, dissolved (D-Mn)	mg/L	-	-	0.00185
Nickel, dissolved (D-Ni)	mg/L	-	-	<0.00050
Strontium, dissolved (D-Sr)	mg/L	-	-	0.186
Vanadium, dissolved (D-V)	mg/L	-	-	<0.00050
Zinc, dissolved (D-Zn)	mg/L	-	-	0.0021
Polycyclic Aromatic Hydrocarbons (PAHs)				
Acenaphthene	mg/L	0.006	-	<0.000010
Acridine	mg/L	-	-	<0.000010
Anthracene	mg/L	-	-	<0.000010
Benz(a)anthracene	mg/L	-	-	<0.000010
Benzo(a)pyrene	mg/L	0.00001	-	<0.0000050
Chrysene	mg/L	0.0001	-	<0.000010
Fluoranthene	mg/L	-	-	<0.000010
Fluorene	mg/L	0.012	-	<0.000010
1-methylnaphthalene	mg/L	-	-	<0.000010
2-methylnaphthalene	mg/L	-	-	<0.000010
Naphthalene	mg/L	0.001	-	<0.000050
Phenanthrene	mg/L	-	-	<0.000020
Pyrene	mg/L	-	-	<0.000010
Quinoline	mg/L	-	-	<0.000050
Volatile Organic Compounds (VOCs)				
Benzene	mg/L	0.11	-	<0.00050
Ethylbenzene	mg/L	0.25	-	<0.00050
Methyl-tert-butyl-ether	mg/L	5	0.44	<0.00050
Styrene	mg/L	-	-	<0.00050
Toluene	mg/L	0.215	-	<0.00040
Total Xylenes	mg/L	-	-	<0.00050
Chlorobenzene	mg/L	0.025	-	<0.00050
1,2-Dichlorobenzene	mg/L	0.042	-	<0.00050

Notes:

Non-detect results are screened using the detection limit value.

Results in **bold italics** exceed the applicable long-term water quality guideline for the protection of estuarine water aquatic life.

Shaded results exceed the applicable short-term water quality guideline for the protection of estuarine water aquatic life.

¹ The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.² The approved total ammonia nitrogen BC WQG is salinity, pH and temperature dependent; see Tables 26E and 26F in BC WQG guidance document.

Appendix F:
Marine Water Receiving Environment Results

Table F-1:
Marine Water Dioxin and Furan Toxicity Equivalency Quantity (TEQ) Results Received at the Time of Reporting.

Parameter					Lower Bound PCDD/F TEQ	Upper Bound PCDD/F TEQ
Unit	Position in Water Column	Sample ID	Lab ID	Sampling Date	pg/L	pg/L
Station						
Station IDZ-E1						
IDZ-E1	0.5 m Below Surface	IDZ-E1-0.5	VA25D3301-001	2025-12-12	0.0353	1.06
IDZ-E1	2 m Below Surface	IDZ-E1-2m	VA25D3301-002	2025-12-12	0.00867	0.797
IDZ-E1	2 m Above Seafloor	IDZ-E1-SF	VA25D3301-003	2025-12-12	0.0176	0.815
Station IDZ-E2						
IDZ-E2	0.5 m Below Surface	IDZ-E2-0.5	VA25D3301-004	2025-12-12	0.334	0.912
IDZ-E2	2 m Below Surface	IDZ-E2-2m	VA25D3301-005	2025-12-12	0.00493	0.811
IDZ-E2	2 m Above Seafloor	IDZ-E2-SF	VA25D3301-006	2025-12-12	0.00486	0.864
Station IDZ-W1						
IDZ-W1	0.5 m Below Surface	IDZ-W1-0.5	VA25D2736-001	2025-12-06	0.00155	1.55
IDZ-W1	2 m Below Surface	IDZ-W1-2m	VA25D2736-002	2025-12-06	0.0912	1.59
IDZ-W1	2 m Above Seafloor	IDZ-W1-SF	VA25D2736-003	2025-12-06	0.0753	1.86
Station IDZ-W2						
IDZ-W2	0.5 m Below Surface	IDZ-W2-0.5	VA25D2736-004	2025-12-06	0.182	1.79
IDZ-W2	2 m Below Surface	IDZ-W2-2m	VA25D2736-005	2025-12-06	0.188	1.73
IDZ-W2	2 m Below Surface	IDZ-W2-2m-DUP	VA25D2736-006	2025-12-06	0.179	1.55
IDZ-W2	2 m Above Seafloor	IDZ-W2-SF	VA25D2736-009	2025-12-06	0.157	1.33
Reference Station WQR1						
WQR1	0.5 m Below Surface	WQR1-0.5	VA25D3301-007	2025-12-12	0.0309	0.874
WQR1	2 m Below Surface	WQR1-2m	VA25D3301-008	2025-12-12	0.259	0.798
WQR1	2 m Above Seafloor	WQR1-SF	VA25D3301-009	2025-12-12	0.0716	0.939
Reference Station WQR2						
WQR2	0.5 m Below Surface	WQR2-0.5	VA25D2736-010	2025-12-06	0.0531	1.31
WQR2	2 m Below Surface	WQR2-2m	VA25D2736-011	2025-12-06	0.123	1.55
WQR2	2 m Above Seafloor	WQR2-SF	VA25D2736-012	2025-12-06	0.0597	1.38

Notes:

PCDD = polychlorinated dibenzodioxins (dioxins)

PCDF = polychlorinated dibenzofurans (furans)

TEQ = toxic equivalency

Lower bound PCDD/F TEQ is the sum of the toxic equivalency results for the individual PCDD/F parameters. Non-detectable parameters are assigned a value of zero (0).

Upper bound PCDD/F TEQ is the sum of the toxic equivalency results for the individual PCDD/F parameters. Non-detectable parameters are assigned the value of the detection limit.