TECHNICAL MEMORANDUM

To:	**Ian McAllister, Ashleigh Crompton, Mike Champion, Jackie Boruch and Ryan Schucroft (Woodfibre LNG)**	**Date:**	**28 Feb 2025**
From:	**Holly Pelletier, Cheng Kuang and Patrick Mueller (Lorax)**	**Project #:**	**A633-9**
Subject:	**PE-111578 Weekly Discharge and Compliance Report #52 for February 16 – February 22**		

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 provides water quality database management and WDA compliance reporting services to Woodfibre LNG.

This technical memorandum (Report #52) was prepared by Lorax Environmental and summarizes WDA monitoring conducted for the period of February 16 – February 22. 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 #52 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 D 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. Early-stage civil works are ongoing, and these include site grading, levelling, overburden and bedrock excavation, pouring of concrete foundations and construction of contact water management facilities. Shoring works along the foreshore areas were initiated in December 2023, and in early 2024 construction of water management infrastructure commenced and has continued through the February 16 – February 22, 2025 monitoring period. Land-based construction occurs within two areas east and west of Mill Creek. Non-contact water is intercepted and diverted around the construction areas to Howe Sound and Mill Creek. Contact water collected within the east and west catchment areas (7.12 and 5.92 ha, respectively) is conveyed to the East Wastewater Treatment Plant (WWTP) or the East and West Sedimentation Ponds for treatment or settling of suspended particulate.

The West WWTP has been constructed and pilot testing initiated in August 2024. Operation of the West WWTP was suspended September 25, 2024. The suspension was implemented for the temporary reconfiguration of the plant to conduct pilot-scale evaluation of alternative treatment processes for improving treatment outcomes. Any process modifications that may result from the pilot-scale evaluation will be submitted to BCER for approval prior to full-scale implementation. Site waters that require treatment will continue to be directed to the East WWTP while the operation of the West WWTP is suspended.

Non-contact water diversion ditches west of Mill Creek have been fully or partially upgraded and discharge 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 from the diversion ditches is also conveyed to Howe Sound via station OUT-01. East of Mill Creek, non-contact water is diverted around the East Catchment along pre-existing road ditches that flow to East Creek or Mill Creek. To facilitate the replacement of the East Creek discharge culvert at OUT-12, the lower reach of East Creek was temporarily diverted to an adjacent culvert, OUT-11, on September 17, 2024.

The East and West catchments 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 and West Sedimentation Ponds for TSS settling prior to discharge.

Flocculant-based TSS settling systems are used at the East and West Sedimentation Ponds to remove TSS from non-contaminated contact water at the time of discharge. Some of the clarified water may be recirculated back to the ponds. The first West Sedimentation Pond TSS settling system (ESC) was commissioned for use on September 25, 2024, with an 820 m^3/day installed capacity. A second TSS settling system (W500GPM) was added and commissioned for use on November 28 and provides an additional 2,725 m^3/day installed capacity for clarifying water. A TSS settling system (E500GPM) for the East Sedimentation Pond was commissioned on December 4, 2024, also with 2,725 m^3/day installed capacity.

Contaminated contact water from within the East and West Catchments, and non-contaminated contact water stored in the East Sedimentation Pond are directed to the East WWTP for treatment prior to discharge to Howe Sound. Direct discharge of East WWTP treated contact water to Howe Sound was implemented from October 28, 2024, until January 23, 2025, after which WWTP effluent was redirected to the East Sedimentation Pond and only clarified pond water was discharged to Howe Sound.

The east and west catchment permanent outfall structures have not been completed. Temporary discharge systems (*i.e.*, pumps, hosing and diffusors) are used to convey clarified or treated effluent to the discharge locations authorized for the east and west catchments. In the east catchment, treated WWTP effluent is either directed to the pond or discharge tank. Clarified E500GPM effluent is directed to the discharge tank prior to discharge at location SP-E-OUT since December 2, 2024. The west catchment discharge location, SP-W-OUT, receives the combined clarified effluents from the ESC and W500GPM TSS settling systems since November 28, 2024. Each of the authorized discharge locations has an initial dilution zone (IDZ) where discharged water mixes with Howe Sound surface waters. The IDZ is defined in PE-111578 and extends 150 m from each point of discharge into Howe Sound.

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 was observed during the monitoring period (February 16 – February 22), with precipitation recorded each day except on February 17. The total precipitation amount during the monitoring period was 154 mm, with the majority occurring on February 21 and 22 (105 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
02-16-2025	6.6	4.8	0.4	Overcast
02-17-2025	0	10	1.4	Mix of Sun and Cloud
02-18-2025	0.4	8.8	2.5	Mix of Sun and Cloud
02-19-2025	37.0	8.2	3.1	Rain
02-20-2025	5.0	8.0	3.8	Overcast
02-21-2025	51.8	5.0	3.9	Rain
02-22-2025	53.2	8.4	4.2	Rain

Note: Data retrieved from the Stantec Woodfibre site weather station.

From February 16 – February 22, the East Sedimentation Pond received contact water from the Marine Offloading Facility (MOF) Sump, 36T Bridge Baker Tanks, Area 1100 Sump, Area 1300 Ditch and Sump (Appendix A, Figure 2). Contact waters from Area 4100 Sump and Area 4200 Sump were directed to the West Sedimentation Pond (Appendix A, Figure 3).

Routine operation of the East WWTP continued during the monitoring period. Contact waters from the concrete batch plant, the Wash Bay, and the Hydrovac Pit Tanks were 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 and pond water clarified through the E500GPM TSS settling system was recirculated to the East Sedimentation Pond each day during the monitoring period. A total of 4,611 m^3 of East Sedimentation Pond effluent clarified through the TSS settling system (E500GPM) was directed to the authorized discharge location SP-E-OUT on February 20, 21, and 22. Daily water volumes processed by the East WWTP and the East TSS settling system (E500GPM), and volumes discharged to Howe Sound from the East Catchment authorized discharge location (SP-E-OUT) are provided in Appendix B (Table B-8).

West Sedimentation Pond water was clarified through the W500GPM and ESC TSS settling systems prior to discharge. A total of 7,778 m^3 of effluent was clarified through the W500GPM system and directed to the SP-W-OUT discharge location on February 18, 20, 21, and 22 and a total of 651 m^3 of effluent was clarified through the ESC system and directed to SP-W-OUT. Daily clarified effluent volumes from the TSS settling systems, and volumes discharged to Howe Sound from the West Catchment authorized discharge location (SP-W-OUT) are provided in Appendix C (Table C-5).

2. Monitoring Summary

The locations of the compliance and supplementary 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.

Compliance and supplementary monitoring stations have been established:

- Non-contact diversion ditch outlet monitoring stations (OUT-01, OUT-02, OUT-06, and OUT-11). East Creek water was temporarily diverted to OUT-11 on September 17 and is monitored at the inlet to temporary diversion (station SW-04), therefore OUT-11 is not currently monitored.
- 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, SP-E-NE, SP-E-NW, E500GPM-IN, E500GPM-OUT, WWTP-E-IN, WWTP-E-OUT, SP-W-IN, SP-W-W, SP-W-E, ESC-W-IN, ESC-W-OUT, W500GPM-IN and W500GPM-OUT).
- Effluent compliance stations (SP-E-OUT and SP-W-OUT).
- 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 yet 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).

Two flocculant-based TSS settling systems are used at the West Sedimentation Pond (ESC and W500GPM). Influent and effluent are monitored for each system at stations ESC-W-IN, ESC-W-OUT, W500GPM-IN and W500GPM-OUT. One TSS settling system (E500GPM) is used at the East Sedimentation Pond. The influent and effluent stations for this system are E500GPM-IN and E500GPM-OUT, respectively. The TSS settling system stations are supplemental to the PE- 111578 monitoring requirements and are monitored at the discretion of field staff.

Water quality was monitored at stations IDZ-E1, IDZ-E2, IDZ-W1, IDZ-W2, WQR1, WQR2, SW-01, SW-02, SW-03, SW-04, SW-07, OUT-06, WWTP-E-IN, WWTP-E-OUT, SP-E-IN, SP-E-OUT, E500GPM-IN, E500GPM-OUT, SP-W-IN, SP-W-OUT, W500GPM-IN, W500GPM-OUT, ESC-W-IN, and ESC-W-OUT during the monitoring period (February 16 – February 22). Sampling dates and parameters tested are summarized in Table 2.

Overall, the PE-111578 monitoring requirements that were applicable during the monitoring period (February 16 – February 22) were met.

Daily field parameters were not collected at effluent stations SP-E-OUT (February 16, 17, 18, and 19) and SP-W-OUT (February 16, 17, and 19) since there was no effluent discharged from the authorized discharge locations on these days. Field parameters collected on February 15 for station IDZ-E1 at 0.5 m below the water surface were not available due to a field transcription

error; therefore, laboratory parameters are reported where available. 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 the West WWTP was not operational during the monitoring period.

Table 2: Summary of PE-111578 Monitoring Samples Collected February 16 – February 22.

Sampling Date	Sample	Description	Parameters Tested	Monitoring Frequency
February 16, 2025	SP-E-IN	East Sedimentation Pond influent entering the pond and collected at cell 1	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		
	E500GPM-IN	East Sedimentation Pond 500 GPM TSS settling system at the influent meter box	Field Parameters.	P
	E500GPM-OUT	East Sedimentation Pond 500 GPM TSS settling system at the effluent meter box		
	SP-W-IN	West Sedimentation Pond influent entering the pond and collected at cell 1	Field Parameters.	D
	W500GPM-IN	West Sedimentation Pond 500 GPM TSS settling system at the influent meter box	Field Parameters.	P
	W500GPM-OUT	West Sedimentation Pond 500 GPM TSS settling system at the effluent meter box		
February 17, 2025	SP-E-IN	East Sedimentation Pond influent entering the pond and collected at cell 1	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		
	E500GPM-IN	East Sedimentation Pond 500 GPM TSS settling system at the influent meter box	Field Parameters.	P
	E500GPM-OUT	East Sedimentation Pond 500 GPM TSS settling system at the effluent meter box		
	SP-W-IN	West Sedimentation Pond influent entering the pond and collected at cell 1	Field Parameters.	D
	W500GPM-IN	West Sedimentation Pond 500 GPM TSS settling system at the influent meter box	Field Parameters.	P
	W500GPM-OUT	West Sedimentation Pond 500 GPM TSS settling system at the effluent meter box		
February 18, 2025	SP-E-IN	East Sedimentation Pond influent entering the pond and collected at cell 1	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		
	E500GPM-IN	East Sedimentation Pond 500 GPM TSS settling system at the influent meter box	Field Parameters.	P
	E500GPM-OUT	East Sedimentation Pond 500 GPM TSS settling system at the effluent meter box		
	SP-W-IN	West Sedimentation Pond influent entering the pond and collected at cell 1	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	D, W_1, W_2
	SP-W-OUT	West Sedimentation Pond clarified effluent discharge to Howe Sound, collected at sampling port		
	W500GPM-IN	West Sedimentation Pond 500 GPM TSS settling system at the influent meter box	Field Parameters.	P
	W500GPM-OUT	West Sedimentation Pond 500 GPM TSS settling system at the effluent meter box		
	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.	W_3, M
	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		
February 19, 2025	SP-E-IN	East Sedimentation Pond influent entering the pond and collected at cell 1	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		
	E500GPM-IN	East Sedimentation Pond 500 GPM TSS settling system at the influent meter box	Field Parameters.	P
	E500GPM-OUT	East Sedimentation Pond 500 GPM TSS settling system at the effluent meter box		
	SP-W-IN	West Sedimentation Pond influent entering the pond and collected at cell 1	Field & Physical Parameters, Total and Dissolved Mercury.	D, W_1
	SW-02	Upper Reach of Mill Creek (upstream of third bridge)	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	M
	SW-03	Lower Reach of Mill Creek (near the mouth, in the estuarine zone)		
	SW-07	Upstream Mill Creek (at the diversion inlet)		
February 20, 2025	SP-E-IN	East Sedimentation Pond influent entering the pond and collected at cell 1	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	D, W_1, W_2
	SP-E-OUT	East Sedimentation Pond clarified effluent discharge to Howe Sound, collected at sampling port		
	WWTP-E-IN	East WWTP at the influent meter box	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	D, W_1, W_2
	WWTP-E-OUT	East WWTP at the effluent meter box		
	E500GPM-IN	East Sedimentation Pond 500 GPM TSS settling system at the influent meter box	Field Parameters.	P
	E500GPM-OUT	East Sedimentation Pond 500 GPM TSS settling system at the effluent meter box		
	SP-W-IN	West Sedimentation Pond influent entering the pond and collected at cell 1	Field Parameters.	D
	SP-W-OUT	West Sedimentation Pond clarified effluent discharge to Howe Sound, collected at sampling port		
	W500GPM-IN	West Sedimentation Pond 500 GPM TSS settling system at the influent meter box	Field Parameters.	P
	W500GPM-OUT	West Sedimentation Pond 500 GPM TSS settling system at the effluent meter box		
	ESC-W-IN	Influent to the West Sedimentation Pond TSS settling system	Field Parameters.	P
	ESC-W-OUT	West TSS settling system effluent at the ESC meter box		
	OUT-06	Non-contact water diversion ditch outlet	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	M

Table 2 (continued): Summary of PE-111578 Monitoring Samples Collected February 16 – February 22.

Sampling Date	Sample	Description	Parameters Tested	Monitoring Frequency
February 20, 2025 (continued)	IDZ-E1-0.5	Howe Sound IDZ station E1; 0.5 m below surface	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	W_3, M
	IDZ-E1-2m	Howe Sound IDZ station E1; 2 m below surface		
	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		
February 21, 2025	SP-E-IN	East Sedimentation Pond influent entering the pond and collected at cell 1	Field Parameters.	D
	SP-E-OUT	East Sedimentation Pond clarified effluent discharge to Howe Sound, collected at sampling port	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		
	E500GPM-IN	East Sedimentation Pond 500 GPM TSS settling system at the influent meter box	Field Parameters.	P
	E500GPM-OUT	East Sedimentation Pond 500 GPM TSS settling system at the effluent meter box		
	SP-W-IN	West Sedimentation Pond influent entering the pond and collected at cell 1	Field Parameters.	D
	SP-W-OUT	West Sedimentation Pond clarified effluent discharge to Howe Sound, collected at sampling port	Field Parameters.	D
	W500GPM-IN	West Sedimentation Pond 500 GPM TSS settling system at the influent meter box	Field Parameters.	P
	W500GPM-OUT	West Sedimentation Pond 500 GPM TSS settling system at the effluent meter box		
	ESC-W-IN	Influent to the West Sedimentation Pond TSS settling system	Field Parameters.	P
	ESC-W-OUT	West TSS settling system effluent at the ESC meter box		
	SW-01	Lower Reach of Woodfibre Creek (near the mouth)	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	M
	SW-04	Lower Reach of East Creek (near the outlet to the outfall culvert)		
February 22, 2025	SP-E-IN	East Sedimentation Pond influent entering the pond and collected at cell 1	Field Parameters.	D
	SP-E-OUT	East Sedimentation Pond clarified effluent discharge to Howe Sound, collected at sampling port	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		
	E500GPM-IN	East Sedimentation Pond 500 GPM TSS settling system at the influent meter box	Field Parameters.	P
	E500GPM-OUT	East Sedimentation Pond 500 GPM TSS settling system at the effluent meter box		
	SP-W-IN	West Sedimentation Pond influent entering the pond and collected at cell 1	Field Parameters.	D
	SP-W-OUT	West Sedimentation Pond clarified effluent discharge to Howe Sound, collected at sampling port	Field Parameters.	D
	W500GPM-IN	West Sedimentation Pond 500 GPM TSS settling system at the influent meter box	Field Parameters.	P
	W500GPM-OUT	West Sedimentation Pond 500 GPM TSS settling system at the effluent meter box		

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.
W_1 – initial high frequency monitoring for physical parameters at WWTP and sedimentation pond influent and effluent stations.
W_2 – initial high frequency monitoring for all parameters at WWTP and sedimentation pond influent and effluent stations.
W_3 – initial high frequency monitoring for physical parameters at IDZ stations.
P – periodic monitoring for targeted parameters that is supplementary to PE-111578 requirements.

3. Water Quality Results

3.1 Screening and Reporting Overview

Water quality and flow monitoring results are screened against field quality control (QC) criteria, benchmark values, operational minimum discharge objectives (MDOs) that the WWTPs are currently being operated to meet, PE-111578 discharge limits, as well as Canadian, Federal 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.

Canadian, Federal and BC WQGs are not specified for dioxins and furans. The general term "dioxins and furans" refers to chlorinated dibenzo-*p*-dioxins and chlorinated dibenzofurans. A sub-set of 17 polychlorinated dibenzo-*p*-dioxins (PCDDs) and polychlorinated dibenzofurans (PCDFs) are typically evaluated for toxicity and the individual parameter concentrations are converted to toxic equivalent (TEQ) values that are summed and reported 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 sub-set of 17 individual 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 methylmercury WQG to support the interpretation of total mercury and methylmercury results.

3.2 Summary of Reported Results

Field measurements and analytical results available at the time of reporting for samples collected during the monitoring period (February 16 – February 22) and for other samples that have not been previously reported are listed below in Table 3. Testing for methylmercury, dioxins and furans typically requires up to four weeks to complete. Analytical results not available at the time of reporting will be included in future weekly reports when testing is completed. Reporting of results is pending for the following samples and parameters:

- WWTP-E-IN and WWTP-E-OUT collected January 24 (dioxins and furans)
- SW-01, SW-02, and SW-03 collected January 24 (dioxins and furans)
- SW-04 and SW-07 collected January 25 (dioxins and furans)
- WWTP-E-IN and WWTP-E-OUT collected January 28 (dioxins and furans)
- SP-W-IN collected January 30 (dioxins and furans)
- SP-E-OUT collected January 31 (dioxins and furans)
- SP-W-OUT collected February 1 (dioxins and furans)
- WWTP-E-IN and WWTP-E-OUT collected February 5 (dioxins and furans)
- SP-E-IN and SP-W-IN collected February 7 (dioxins and furans)
- SP-E-IN, WWTP-E-IN, WWTP-E-OUT, and SP-W-IN collected February 15 (methylmercury, dioxins and furans)
- E500GPM-OUT and E500GPM-IN collected February 15 (methylmercury)
- SP-W-IN and SP-W-OUT collected February 18 (methylmercury, dioxins and furans)
- IDZ-W1, IDZ-W2, and WQR2 collected February 18 (field and all analytical parameters)
- SW-02, SW-03, and SW-07 collected February 19 (field and all analytical parameters)
- SP-E-IN, SP-E-OUT, WWTP-E-IN, and WWTP-E-OUT collected February 20 (methylmercury, dioxins and furans)
- OUT-06 collected February 20 (field and all analytical parameters)
- IDZ-E1, IDZ-E2, and WQR1 collected February 20 (methylmercury, dioxins and furans)
- SW-01 and SW-04 collected February 21 (field and all analytical parameters)

Table 3: Summary of Analytical Results Included in Weekly Discharge and Compliance Report #52.

Sample	Description	Sampling Date	Parameters Reported
SP-E-IN	East Sedimentation Pond influent entering the pond and collected at cell 1	February 7, 2025	Methylmercury.
SP-W-IN	West Sedimentation Pond influent entering the pond and collected at cell 1		
SP-E-IN	East Sedimentation Pond influent entering the pond and collected at cell 1	February 15, 2025	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, and VOCs.
WWTP-E-IN	East WWTP at the influent meter box		Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, and VOCs.
WWTP-E-OUT	East WWTP at the effluent meter box		
E500GPM-IN	East Sedimentation Pond 500 GPM TSS settling system at the influent meter box		Field and Physical Parameters, Total and Dissolved Metals.
E500GPM-OUT	East Sedimentation Pond 500 GPM TSS settling system at the effluent meter box		
SP-W-IN	West Sedimentation Pond influent entering the pond and collected at cell 1		Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, and VOCs.
IDZ-E1-0.5	Howe Sound IDZ station E1; 0.5 m below surface		Field and Physical Parameters.
IDZ-E1-2m	Howe Sound IDZ station E1; 2 m below surface		
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		
IDZ-W1-0.5	Howe Sound IDZ station W1; 0.5 m below surface		
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		
SP-W-IN	West Sedimentation Pond influent entering the pond and collected at cell 1	February 18, 2025	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, and VOCs.
SP-W-OUT	West Sedimentation Pond clarified effluent discharge to Howe Sound, collected at sampling port		
SP-W-IN	West Sedimentation Pond influent entering the pond and collected at cell 1	February 19, 2025	Field and Physical Parameters, Total and Dissolved Mercury.
SP-E-IN	East Sedimentation Pond influent entering the pond and collected at cell 1	February 20, 2025	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, and VOCs.
SP-E-OUT	East Sedimentation Pond clarified effluent discharge to Howe Sound, collected at sampling port		
WWTP-E-IN	East WWTP at the influent meter box		Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, and VOCs.
WWTP-E-OUT	East WWTP at the effluent meter box		
IDZ-E1-0.5	Howe Sound IDZ station E1; 0.5 m below surface		Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, and VOCs.
IDZ-E1-2m	Howe Sound IDZ station E1; 2 m below surface		
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		

3.3 East Catchment

The East Catchment water quality monitoring results for stations at the East Sedimentation Pond, East WWTP and the authorized discharge location are discussed in this section. Results for the sedimentation pond and authorized discharge location are screened against PE-111578 discharge limits. Parameters without a discharge limit are screened against Canadian, Federal and BC WQGs for the protection of marine water aquatic life. East WWTP monitoring results are screened against operational MDOs which are equivalent to the PE-111578 discharge limits and the lowest applicable WQGs for parameters without discharge limits. The screened water quality results for analytical samples available at the time of reporting and for field parameters collected during the monitoring period are presented in Appendix B. Exceedances of PE-111578 discharge limits and WQGs in samples of effluent discharged to Howe Sound and results received for methylmercury are summarized below.

During the monitoring period (February 16 – February 22), clarified water from the East Sedimentation Pond TSS settling system (E500GPM) discharged to Howe Sound at the authorized discharge location (station SP-E-OUT) on February 20, 21, and 22. Daily discharge volumes from the East Catchment are summarized in Appendix B, Table B-8.

Field measurements were collected February 16 – February 22 at multiple influent and effluent locations, as outlined in Section 2, and are tabulated in Appendix B, Table B-7. Analytical samples collected on February 15 (stations SP-E-IN, WWTP-E-IN, WWTP-E-OUT, E500GPM-IN, and E500GPM-OUT as discussed in Report #51) and February 20 (stations SP-E-IN, SP-E-OUT, WWTP-E-IN and WWTP-E-OUT) were available at the time of reporting. Screening results for East Catchment contact water quality are tabulated in Table B-1 through Table B-5 of Appendix B.

During the monitoring period (February 16 – February 22), analytical results and field measurements monitored at station SP-E-OUT met PE-111578 discharge limits and WQGs except total mercury on February 20 (Table 4).

Table 4:
Summary of Parameters Exceeding WQGs in Effluent Discharged from SP-E-OUT for Field and Analytical Results Available at the Time of Reporting

Parameter	Units	WQG[1]	N	N >WQG	Commentary
Total Mercury	mg/L	0.000016	2	2	Total mercury measured in the monitoring and duplicate samples at station SP-E-OUT on February 20 (0.0000268 and 0.0000294 mg/L, respectively) was 1.7 and 1.8 times greater than the long-term WQG, respectively.

N = number of samples.
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.

Total copper was above the MDO in four replicate samples of East WWTP effluent (WWTP-E-OUT) collected February 15. Total mercury was above the MDO in WWTP-E-OUT samples collected February 15 and 20. Total zinc was also above the MDO in two of the four WWTP-E-OUT replicate samples collected February 15 and the WWTP-E-OUT sample collected February 20. East WWTP treated effluent has been directed to the East Sedimentation Pond since January 24. This item is tracked in Table 5.

Methylmercury analytical results were available at the time of reporting for East Sedimentation Pond influent (SP-E-IN) collected February 7 (as discussed in Report #50). Results are tabulated in Appendix B, Table B-6.

3.4 West Catchment

The West Catchment water quality monitoring results for stations at the West Sedimentation Pond, the TSS settling systems (ESC and W500GPM) and West WWTP monitoring stations, and the authorized discharge location are discussed in this section. Results for sedimentation pond and TSS settling system influent and effluent stations are screened against PE-111578 discharge limits. Parameters without a discharge limit are screened against Canadian, Federal and BC WQGs for the protection of marine water aquatic life. The screened water quality results for analytical samples and field parameters are presented in Appendix C. Operation of the West WWTP is currently suspended (refer to Section 1.1) and monitoring results are therefore not available. Exceedances of PE-111578 discharge limits and WQGs in samples of effluent discharged to Howe Sound and results received for methylmercury are summarized below.

During the monitoring period (February 16 – February 22), the TSS settling system (W500GPM) treated water stored in the West Sedimentation Pond each day and produced clarified effluent that was discharged to Howe Sound on February 18, 20, 21, and 22 at the authorized discharge location, SP-W-OUT. The smaller TSS settling system (ESC) was operated February 20, 21, and 22 and produced clarified effluent that was discharged to Howe Sound on February 22. Daily clarified effluent and discharge volumes from the West Catchment are summarized in Appendix C, Table C-5.

Field measurements were collected February 16 – February 22 at multiple influent and effluent locations, as outlined in Section 2, and are tabulated in Appendix C, Table C-4. Analytical samples collected on February 15 (SP-W-IN, as discussed in Report #51) and February 18 (SP-W-OUT) were available at the time of reporting. Screening results for West Catchment contact water quality are tabulated in Table C-1 and Table C-2 of Appendix C.

Field measurements and analytical results monitored at station SP-W-OUT on February 18 met PE-111578 discharge limits and WQGs.

Methylmercury analytical results were available at the time of reporting for West Sedimentation Pond influent (SP-W-IN) collected February 7 (as discussed in Report #50). Results are tabulated in Appendix C, Table C-3.

3.5 Non-Contact Water Diversion Ditch Outlets

Non-contact water diversion ditch samples are screened against Canadian, Federal and BC WQGs for the protection of freshwater aquatic life.

East Creek was temporarily diverted to OUT-11 on September 17 to facilitate replacement of the OUT-12 culvert through which East Creek previously discharged. Only East Creek water is flowing through the OUT-11 culvert. East Creek is monitored at freshwater receiving environment station SW-04 and station OUT-11 is not monitored while diversion is in place.

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

3.6 Freshwater and Estuarine Water Receiving Environment

Freshwater and estuarine water receiving environment samples are screened against Canadian, Federal and BC WQGs for the protection of freshwater and estuarine aquatic life. Parameter concentrations above a WQG value, but within the range of values observed in the baseline monitoring program are considered to represent the natural condition of the water and are not flagged as a possible indicator of project influence.

Analytical results were not available at the time of reporting for freshwater and estuarine water samples.

3.7 Marine Water Receiving Environment

Marine water receiving environment samples are screened against Canadian, Federal and BC WQGs for the protection of marine water aquatic life. Parameter concentrations above a WQG value, but within the range of values observed in the baseline monitoring program or reference stations are considered to represent the natural condition of the water and not flagged as a possible indicator of project influence. Similarly, WQG exceedances at marine reference stations are considered to represent background conditions that are not influenced by the project. It is expected that 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. The analytical results, field parameters and WQGs are summarized in Appendix D.

Analytical results and field measurements 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 February 15 at IDZ-E1, IDZ-E2, IDZ-W1, and IDZ-W2 (as discussed in Report #51) and on February 20 at IDZ-E1, IDZ-E2, and reference station WQR1. Only field and physical parameters were collected on February 15. Field parameters collected on February 15 for station IDZ-E1 at 0.5 m below the water surface were not available due to a field transcription error; therefore, laboratory parameters are reported where available. Parameter concentrations met WQGs except dissolved oxygen and total boron in some samples (Appendix D; Tables D-1 through D-4).

In the marine samples collected 2 m above the seafloor at IDZ-W1 and IDZ-W2, dissolved oxygen was below the lower limit of the WQG (<8 mg/L) and ranged from 7.73 to 7.83 mg/L. Total boron was above the WQG (1.2 mg/L) and ranged from 1.76 to 4.12 mg/L in all samples collected February 20 at IDZ-E1, IDZ-E2, and reference station WQR1. Low concentrations of dissolved oxygen and elevated concentrations of total boron are indicative of influence from the deeper saline waters in the northern basin of Howe Sound and are a natural condition of the marine water at the WDA monitoring stations. The dissolved oxygen and total boron concentrations observed at the IDZ monitoring stations are within concentrations that have been observed in the pre-construction baseline monitoring program or within background ranges observed at marine reference stations and are therefore not attributed to project influence.

4. Quality Control

This section presents the results of the quality control (QC) evaluation for the PE-111578 weekly report (Table 5). 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 5. Any items flagged for follow-up are carried forward to future reports until they are closed.

Table 5: Weekly Report QC Evaluations and Ongoing Items

QC Procedure	Observation	Investigation/Resolution
Reporting Period (February 16 – February 22, Report #52)		
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 were under construction during the reporting period. The East and West Sedimentation Ponds and WWTPs have been constructed. The sedimentation pond conveyance ditches have not been constructed, and influent culverts have not been activated, and the associated influent monitoring stations have not been established. Temporary outfalls are used for the East and West authorized discharge locations until the permanent structures are completed. Operation of the West WWTP has been suspended since September 25, 2024, and the plant has been repurposed to evaluate alternative treatment processes. The lower reach of East Creek has been temporarily diverted through OUT-11 outfall since September 17, 2024, to facilitate replacement of the East Creek outfall culvert (OUT-12). East Creek is monitored at SW-04 therefore monitoring at OUT-11 has been suspended. As communicated to BCER, the East Catchment discharge pathway for authorized discharge location SP-E-OUT was reconfigured on October 28, 2024, to direct sedimentation pond water to the East WWTP and to discharge East WWTP treated effluent. On November 28 and December 4, 2024, TSS settling systems were commissioned for use at the West and East Sedimentation Ponds, respectively, and are configured to discharge the clarified sediment pond water to Howe Sound. This item remains open.
WWTP Performance Evaluation	Field pH, T-Cu, T-Hg, T-Zn, and hexavalent Cr above the MDO	This item was first noted in Report #46 (January 8 sample) and has been updated with January 14 results (Report #47), January 24 and January 28 results (Report #49), February 5 and 6 results (Report #50), February 10 results (Report #51), and February 15 and 20 results (this report). The total copper concentrations were 0.00809, 0.00595, 0.00895, and 0.00518 mg/L in samples collected at WWTP-E-OUT on January 8, 14, 24, and 28, respectively, and ranged from 0.00613 to 0.0108 mg/L in four replicate samples collected on February 15. The total mercury concentrations were 0.0000355, 0.000185, and 0.000223 mg/L in samples collected on January 24, 30, and February 20, respectively, and were 0.0000615 and 0.0000644 mg/L in two replicate samples collected February 15. The total zinc concentrations were 0.0137 and 0.0152 mg/L in the samples collected on January 24 and February 20 and were 0.0223 and 0.0234 mg/L in two of four replicate samples collected February 15. Hexavalent chromium concentrations were 0.00197 and 0.00166 mg/L in samples collected January 24 and 28 at WWTP- E-OUT. Field pH was 9.1, 9.2, and 9.6 in samples collected at WWTP-E-OUT on February 5, 6 and 10, respectively. Review of possible causes is ongoing. The effluent discharged to Howe Sound at SP-E-OUT met the discharge limits on January 8. East WWTP effluent was routed to the pre-discharge holding tank and did not discharge to Howe Sound on January 14. East WWTP effluent has been directed to the East Sedimentation Pond since January 24. This item remains open.
Data QC	D-Cu and D-Zn greater than T-Cu and T-Zn	This item was first noted in Report #49 (January 31 samples) and has been updated with February 15 and February 18 results (this report). The dissolved copper and zinc concentrations were 2.2 to 2.5 times greater than the total copper concentration and 1.5 to 1.8 times the total zinc concentrations in two of four replicate samples collected at SP-E-OUT on January 31. The dissolved zinc concentrations were 3.6 and 5.5 times greater than the total zinc concentrations in the samples collected from WWTP-E-IN on February 15 and from SP-W-OUT on February 18, respectively. It is suspected that the dissolved metal sample bottles were contaminated during sample processing. Enhanced sampling and testing for copper and zinc is ongoing to identify specific sources of contamination. This item remains open.
Pending Data	Analytical results not reported.	Analytical results for receiving environment samples collected February 18, 19, 20, and 21 were not complete at the time of Report #52 preparation. Methylmercury, dioxins and furans results for contact water samples collected February 18 and 20 and receiving environment samples collected February 20 were not complete at the time of Report #52 preparation. The pending results will be included in future weekly reports when available. This item remains open.
Ongoing Items from Previous Weekly Reports		
Report #48: Pending Data	Analytical results not reported.	Dioxins and furans results for samples collected January 24 and 25 were not complete at the time of Report #52 preparation. The pending results will be included in future weekly reports when available. This item remains open.
Report #49: Non-Compliant Effluent	Non-compliant discharge from the East Catchment on January 31.	Total copper measured in one of four replicate samples collected at station SP-E-OUT on January 31 was 1.2 times above the PE-111578 discharge limit. These results are included in an enhanced sampling and testing program for total copper and zinc that is ongoing. Results to date suggest copper contamination is introduced in the sampling and/or testing process; however, the source has not yet been isolated. BCER was notified on February 3. Review of the non-compliance is complete, and outcomes have been communicated to BCER. This item is closed.
Report #49: Pending Data	Analytical results not reported.	Dioxin and furans results for samples collected January 28, 30, 31, and February 1 were not complete at the time of Report #52 preparation. The pending results will be included in future weekly reports when available. This item remains open.
Report #50: Pending Data	Analytical results not reported.	Methylmercury analytical results for samples collected February 7 are discussed in Sections 3.3 and 3.4 of Report #52. Dioxin and furans results for samples collected February 5 and 7 were not complete at the time of Report #52 preparation. The pending results will be included in future weekly reports when available. This item remains open.
Report #51: Pending Data	Analytical results not reported.	Analytical results for contact water samples collected February 15 are discussed in Sections 3.3 and 3.4 of Report #52. Methylmercury, dioxins and furans results for contact water samples collected February 15 were not complete at the time of Report #52 preparation. Analytical results for receiving environment samples collected February 15 were not complete at the time of Report #52 preparation. The pending results will be included in future weekly reports when available. This item remains open.

Notes:

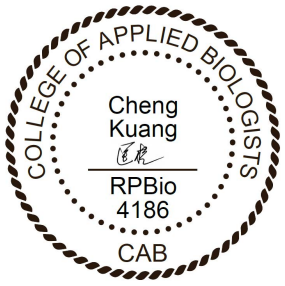
Result QA/QC screening includes the evaluation of field and lab QC results, comparison of total and dissolved metal results and review for modified detection limits.
Pending data are outstanding results from monitoring samples reported in the current or previous weekly reports.
Authorized works and monitoring 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.

5. 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.

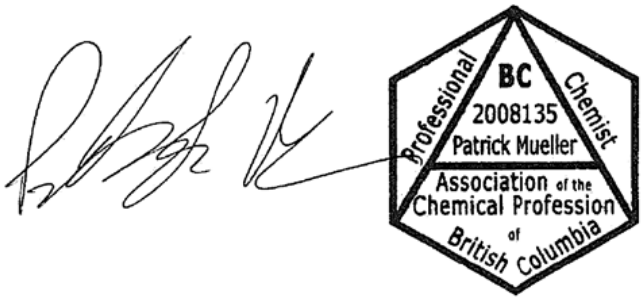
Regards,

LORAX ENVIRONMENTAL SERVICES LTD.



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

Cheng Kuang, M.Sc., RPBio.
Environmental Scientist



Patrick Mueller, B.Sc., P.Chem.
Environmental Chemist

Appendix A: Figures and Site Images

LEGEND

- Freshwater Monitoring Station
- Marine Water Monitoring Station
- Certified Project Area
- Watercourse
- East Creek Temporary Diversion
- Non Contact Ditch (Under Construction)
- Outfall
- Clean Water Diversion Discharge Station
- Sedimentation Pond Monitoring Stations (Water Quality)
- Wastewater Treatment Plant (WWTP)

DATE SAVED:	Feb 20, 2025
DRAWN BY:	DM
REVIEWED:	PM
VERSION:	1

Coordinate System: NAD 1983 UTM Zone 10N
Projection: Transverse Mercator
Datum: North American 1983
Units: Metre

1:6,000

0 50 100 150 Metres

CLIENT: Woodfibre LNG

LORAX ENVIRONMENTAL

PROJECT:

Woodfibre LNG Project Construction Phase

TITLE:
Completed or Under Construction Water Management Facilities and Established PE-111578 Monitoring Stations (February 15, 2025)

PROJECT #: A633-7 FIGURE: 1

P:\@Drafting\Woodfibre\Drafting Figures\APRX\WLNG Construction Phase 2024\WLNG Construction Phase 2024 - Weekly Reporting.aprx Figure 1 Monitoring and Compliance Locations

Figure 2: East Catchment contact water management facilities (February 16 – February 22).

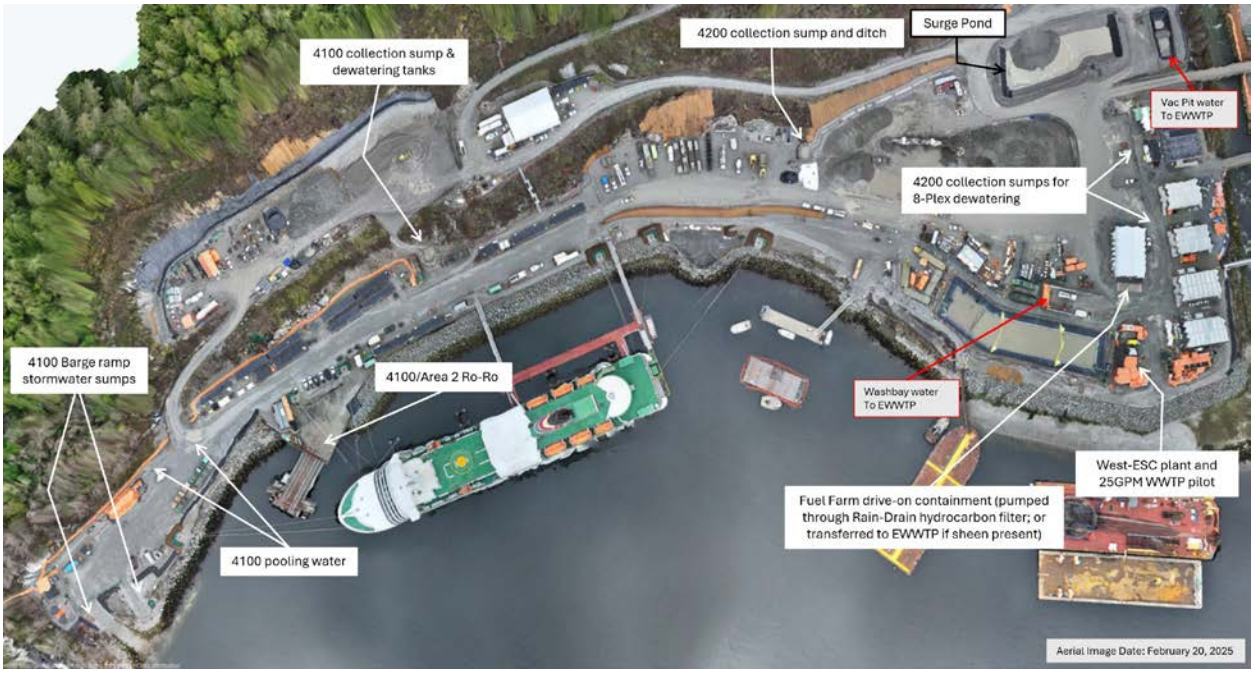


Figure 3: West Catchment contact water management facilities (February 16 – February 22).

Figure 4: Aerial view of the East Sedimentation Pond (February 20, 2025). The East WWTP is located on the left side and the E500GPM TSS settling system is situated along the bottom edge of the pond.

Figure 5: Aerial view of the West Sedimentation Pond (February 20, 2025). The TSS settling systems are located to the left (W500GPM) and right (ESC) of the pond.

Appendix B: East Catchment Monitoring Results

Table B-1: East Catchment Contact Water Influent 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-IN	Station E500GPM-IN
					Influent	Influent	Influent
					WWTP-E-IN	WWTP-E-IN	E500GPM-IN
					VA25A3315-001	VA25A3676-005	VA25A3314-003
		Long Term	Short Term		2025-02-15 15:00	2025-02-20 14:45	2025-02-15 14:00
General Parameters							
pH - Field	pH units	- [2]	-	5.5 - 9.0	7.3	7.0	7.2
Conductivity - Field	µS/cm	-	-	-	1776	849	1769
Temperature - Field	°C	-	-	-	3.9	8.9	3.7
Salinity - Field	ppt	-	-	-	1.54	0.61	1.54
Turbidity - Field	NTU	-	-	-	4.23	3.45	2.95
TSS	mg/L	-	-	25 or 75 [6]	<3.0	<3.0	<3.0
Dissolved Oxygen - Field	mg/L	≥8	-	-	14.43	10.3	14.35
Anions and Nutrients							
Sulphate	mg/L	-	-	-	1160	1110	-[7]
Chloride	mg/L	-	-	-	18.6	28.8	-[7]
Fluoride	mg/L	-	1.5	-	<0.400	<0.400	-[7]
Ammonia (N-NH_3)	mg/L	26-29[3]	175-191[3]	-	0.050	<0.0050	-[7]
Nitrite (N-NO_2)	mg/L	-	-	-	0.0344	0.0311	-[7]
Nitrate (N-NO_3)	mg/L	3.7	339	-	0.455	0.637	-[7]
Total Metals							
Aluminum, total (T-Al)	mg/L	-	-	-	0.245	0.204	0.208
Antimony, total (T-Sb)	mg/L	-	0.27 [4]	-	0.00144	0.00142	0.00146
Arsenic, total (T-As)	mg/L	0.0125	0.0125	-	0.00262	0.00056	0.00260
Barium, total (T-Ba)	mg/L	-	-	-	0.00801	0.03	0.00780
Beryllium, total (T-Be)	mg/L	0.1	-	-	<0.000100	<0.000040	<0.000100
Boron, total (T-B)	mg/L	1.2	-	-	<0.050	0.117	<0.050
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000300	<0.0000350	<0.0000350
Chromium, total (T-Cr)	mg/L	-	-	-	<0.00250	0.00155	<0.00250
Cobalt, total (T-Co)	mg/L	-	-	-	<0.00050	0.00042	<0.00050
Copper, total (T-Cu)	mg/L	- [2]	- [2]	0.0043	0.00343	0.00166	0.00316
Iron, total (T-Fe)	mg/L	-	-	-	0.288	0.201	0.277
Lead, total (T-Pb)	mg/L	- [2]	- [2]	0.0035	0.000521	0.000347	0.000475
Manganese, total (T-Mn)	mg/L	-	-	-	0.0323	0.21	0.0308
Mercury, total (T-Hg)	mg/L	0.000016 [5]	-	-	***0.000122***	***0.0000571***	***0.00011***
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.114	0.0766	0.116
Nickel, total (T-Ni)	mg/L	0.0083	-	-	<0.00250	<0.00100	<0.00250
Selenium, total (T-Se)	mg/L	0.002	-	-	0.000455	0.000378	0.000394
Silver, total (T-Ag)	mg/L	0.0015	0.003	-	<0.000050	<0.000020	<0.000050
Thallium, total (T-Tl)	mg/L	-	-	-	<0.000050	<0.000020	<0.000050
Uranium, total (T-U)	mg/L	-	-	-	0.0274	0.0234	0.0269
Vanadium, total (T-V)	mg/L	- [2]	-	0.0081	<0.00250	<0.00100	<0.00250
Zinc, total (T-Zn)	mg/L	- [2]	- [2]	0.0133	0.0203	0.0369	0.0095
Hexavalent Chromium, total	mg/L	0.0015	-	-	<0.00050	<0.00050	-[7]
Dissolved Metals							
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000250	<0.0000400	<0.0000300
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00261	0.00144	0.00262
Iron, dissolved (D-Fe)	mg/L	-	-	-	0.094	0.041	0.089
Lead, dissolved (D-Pb)	mg/L	-	-	-	<0.000250	<0.000100	<0.000250
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.0272	0.198	0.0296
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00250	<0.00100	<0.00250
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.219	1.06	0.222
Vanadium, dissolved (D-V)	mg/L	-	-	-	<0.00250	<0.00100	<0.00250
Zinc, dissolved (D-Zn)	mg/L	-	-	-	0.112	0.034	0.0081
Polycyclic Aromatic Hydrocarbons (PAHs)							
Acenaphthene	mg/L	0.006	-	-	<0.000010	0.000013	-[7]
Acridine	mg/L	-	-	-	<0.000010	<0.000010	-[7]
Anthracene	mg/L	-	-	-	<0.000010	<0.000010	-[7]
Benz(a)anthracene	mg/L	-	-	-	<0.000010	<0.000010	-[7]
Benzo(a)pyrene	mg/L	0.00001	-	-	<0.0000050	<0.0000050	-[7]
Chrysene	mg/L	0.0001	-	-	<0.000010	<0.000010	-[7]
Fluoranthene	mg/L	-	-	-	<0.000010	<0.000010	-[7]
Fluorene	mg/L	0.012	-	-	<0.000010	<0.000010	-[7]
1-methylnaphthalene	mg/L	0.001	-	-	<0.000010	<0.000010	-[7]
2-methylnaphthalene	mg/L	0.001	-	-	<0.000010	<0.000010	-[7]
Naphthalene	mg/L	0.001	-	-	<0.000050	<0.000050	-[7]
Phenanthrene	mg/L	-	-	-	<0.000020	<0.000020	-[7]
Pyrene	mg/L	-	-	-	<0.000010	<0.000010	-[7]
Quinoline	mg/L	-	-	-	<0.000050	0.000072	-[7]
Volatile Organic Compounds (VOCs)							
Benzene	mg/L	0.11	-	-	<0.00050	<0.00050	-[7]
Ethylbenzene	mg/L	0.25	-	-	<0.00050	<0.00050	-[7]
Methyl-tert-butyl-ether	mg/L	5	0.44	-	<0.00050	<0.00050	-[7]
Styrene	mg/L	-	-	-	<0.00050	<0.00050	-[7]
Toluene	mg/L	0.215	-	-	<0.00040	<0.00040	-[7]
Total Xylenes	mg/L	-	-	-	<0.00050	<0.00050	-[7]
Chlorobenzene	mg/L	0.025	-	-	<0.00050	<0.00050	-[7]
1,2-Dichlorobenzene	mg/L	0.042	-	-	<0.00050	<0.00050	-[7]

Notes: 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 Sedimentation Pond discharged during the monitoring period (February 9 – February 15) on February 20, 21, and 22.
[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] 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. Wet Conditions applied from February 19 through February 22.
[7] Only field parameters and total and dissolved metals were tested for the E500GPM-IN sample collected February 15.

Table B-2: East Catchment Contact Water Influent 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-IN
					Influent	Influent
					SP-E-IN	SP-E-IN
					VA25A3314-002	VA25A3676-004
		Long Term	Short Term		2025-02-15 11:15	2025-02-20 15:34
General Parameters						
pH - Field	pH units	- [2]	-	5.5 - 9.0	7.6	6.8
Conductivity - Field	µS/cm	-	-	-	1759	2014
Temperature - Field	°C	-	-	-	3.8	7.9
Salinity - Field	ppt	-	-	-	1.53	1.56
Turbidity - Field	NTU	-	-	-	2.58	38.66
TSS	mg/L	-	-	25 or 75 [6]	25.2	66.9
Dissolved Oxygen - Field	mg/L	≥8	-	-	14.83	11.94
Anions and Nutrients						
Sulphate	mg/L	-	-	-	1120	1240
Chloride	mg/L	-	-	-	18.1	20.5
Fluoride	mg/L	-	1.5	-	<0.400	<0.400
Ammonia (N-NH_3)	mg/L	10-29 [3]	69-191 [3]	-	0.0467	0.0071
Nitrite (N-NO_2)	mg/L	-	-	-	0.0313	0.03
Nitrate (N-NO_3)	mg/L	3.7	339	-	0.573	0.552
Total Metals						
Aluminum, total (T-Al)	mg/L	-	-	-	0.275	3.32
Antimony, total (T-Sb)	mg/L	-	0.27 [4]	-	0.00148	0.00151
Arsenic, total (T-As)	mg/L	0.0125	0.0125	-	0.00251	0.00311
Barium, total (T-Ba)	mg/L	-	-	-	0.00796	0.0367
Beryllium, total (T-Be)	mg/L	0.1	-	-	<0.000100	0.000064
Boron, total (T-B)	mg/L	1.2	-	-	<0.050	0.035
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000250	<0.0000900
Chromium, total (T-Cr)	mg/L	-	-	-	<0.00250	0.00975
Cobalt, total (T-Co)	mg/L	-	-	-	<0.00050	0.0012
Copper, total (T-Cu)	mg/L	- [2]	- [2]	0.0043	0.00276	0.00966
Iron, total (T-Fe)	mg/L	-	-	-	0.31	3.17
Lead, total (T-Pb)	mg/L	- [2]	- [2]	0.0035	0.000513	0.00521
Manganese, total (T-Mn)	mg/L	-	-	-	0.0363	0.126
Mercury, total (T-Hg)	mg/L	0.000016 [5]	-	-	***0.000123***	***0.000358***
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.114	0.118
Nickel, total (T-Ni)	mg/L	0.0083	-	-	<0.00250	0.00214
Selenium, total (T-Se)	mg/L	0.002	-	-	0.000362	0.000496
Silver, total (T-Ag)	mg/L	0.0015	0.003	-	<0.000050	<0.000020
Thallium, total (T-Tl)	mg/L	-	-	-	<0.000050	0.000047
Uranium, total (T-U)	mg/L	-	-	-	0.026	0.0164
Vanadium, total (T-V)	mg/L	- [2]	-	0.0081	<0.00250	0.00791
Zinc, total (T-Zn)	mg/L	- [2]	- [2]	0.0133	0.0054	0.0333
Hexavalent Chromium, total	mg/L	0.0015	-	-	<0.00050	<0.00050
Dissolved Metals						
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000300	<0.0000450
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00186	0.00259
Iron, dissolved (D-Fe)	mg/L	-	-	-	0.069	0.057
Lead, dissolved (D-Pb)	mg/L	-	-	-	<0.000250	<0.000100
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.0328	0.0718
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00250	<0.00100
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.238	0.512
Vanadium, dissolved (D-V)	mg/L	-	-	-	<0.00250	0.00154
Zinc, dissolved (D-Zn)	mg/L	-	-	-	<0.0050	0.0124
Polycyclic Aromatic Hydrocarbons (PAHs)						
Acenaphthene	mg/L	0.006	-	-	<0.000010	<0.000010
Acridine	mg/L	-	-	-	<0.000010	<0.000010
Anthracene	mg/L	-	-	-	<0.000010	<0.000010
Benz(a)anthracene	mg/L	-	-	-	<0.000010	0.000012
Benzo(a)pyrene	mg/L	0.00001	-	-	<0.0000050	***0.0000109***
Chrysene	mg/L	0.0001	-	-	<0.000010	0.000015
Fluoranthene	mg/L	-	-	-	<0.000010	0.000026
Fluorene	mg/L	0.012	-	-	<0.000010	<0.000010
1-methylnaphthalene	mg/L	0.001	-	-	<0.000010	<0.000010
2-methylnaphthalene	mg/L	0.001	-	-	<0.000010	<0.000010
Naphthalene	mg/L	0.001	-	-	<0.000050	<0.000050
Phenanthrene	mg/L	-	-	-	<0.000020	0.000021
Pyrene	mg/L	-	-	-	<0.000010	0.000024
Quinoline	mg/L	-	-	-	<0.000050	0.000251
Volatile Organic Compounds (VOCs)						
Benzene	mg/L	0.11	-	-	<0.00050	<0.00050
Ethylbenzene	mg/L	0.25	-	-	<0.00050	<0.00050
Methyl-tert-butyl-ether	mg/L	5	0.44	-	<0.00050	<0.00050
Styrene	mg/L	-	-	-	<0.00050	<0.00050
Toluene	mg/L	0.215	-	-	<0.00040	<0.00040
Total Xylenes	mg/L	-	-	-	<0.00050	<0.00050
Chlorobenzene	mg/L	0.025	-	-	<0.00050	<0.00050
1,2-Dichlorobenzene	mg/L	0.042	-	-	<0.00050	<0.00050

Notes: 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 Sedimentation Pond discharged during the monitoring period (February 9 – February 15) on February 20, 21, and 22.
[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] 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. Wet Conditions applied from February 19 through February 22.

Table B-3: East Catchment Effluent Analytical Results Received at the Time of Reporting.

Parameter	Unit	Lowest Applicable Guideline [1]		PE-111578 Discharge Limit	Station WWTP-E-OUT	Station WWTP-E-OUT	Station WWTP-E-OUT	Station WWTP-E-OUT
					Effluent	Effluent	Effluent	Effluent
					WWTP-E-OUT	WWTP-E-OUT-Dup	WWTP-E-OUT-Lab [9]	WWTP-E-OUT-Dup-Lab [9]
					VA25A3315-002	VA25A3315-004	VA25A3315-003	VA25A3315-005
		Long Term	Short Term		2025-02-15 16:30	2025-02-15 16:32	2025-02-15 16:31	2025-02-15 16:33
General Parameters								
pH - Field	pH units	- [2]	-	5.5 - 9.0	6.3	6.3	-[9]	-[9]
Conductivity - Field	µS/cm	-	-	-	1873	1873	-[9]	-[9]
Temperature - Field	°C	-	-	-	4.5	4.5	-[9]	-[9]
Salinity - Field	ppt	-	-	-	1.6	1.6	-[9]	-[9]
Turbidity - Field	NTU	-	-	-	0.99	0.99	-[9]	-[9]
TSS	mg/L	-	-	25 [6]	<3.0	-[8]	-[9]	-[9]
Dissolved Oxygen - Field	mg/L	≥8	-	-	12.4	12.4	-[9]	-[9]
Anions and Nutrients								
Sulphate	mg/L	-	-	-	1280	-[8]	-[9]	-[9]
Chloride	mg/L	-	-	-	19.4	-[8]	-[9]	-[9]
Fluoride	mg/L	-	1.5	-	<0.400	-[8]	-[9]	-[9]
Ammonia ($N\text{-}NH_3$)	mg/L	41 [3]	270 [3]	-	0.0548	-[8]	-[9]	-[9]
Nitrite ($N\text{-}NO_2$)	mg/L	-	-	-	0.0299	-[8]	-[9]	-[9]
Nitrate ($N\text{-}NO_3$)	mg/L	3.7	339	-	0.517	-[8]	-[9]	-[9]
Total Metals								
Aluminum, total (T-Al)	mg/L	-	-	-	0.0854	0.0873	0.0884	0.0898
Antimony, total (T-Sb)	mg/L	-	0.27 [4]	-	0.00153	0.00154	0.00154	0.00154
Arsenic, total (T-As)	mg/L	0.0125	0.0125	-	0.00267	0.00268	0.00278	0.00272
Barium, total (T-Ba)	mg/L	-	-	-	0.00593	0.00616	0.00630	0.00619
Beryllium, total (T-Be)	mg/L	0.1	-	-	<0.000100	<0.000100	<0.000100	<0.000100
Boron, total (T-B)	mg/L	1.2	-	-	<0.050	<0.050	<0.050	<0.050
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000250	<0.0000300	<0.0000300	<0.0000250
Chromium, total (T-Cr)	mg/L	-	-	-	<0.00250	<0.00250	<0.00250	<0.00250
Cobalt, total (T-Co)	mg/L	-	-	-	<0.00050	<0.00050	<0.00050	<0.00050
Copper, total (T-Cu)	mg/L	- [2]	- [2]	0.0043	0.0107 [7]	0.0108 [7]	0.00914 [7]	0.00613 [7]
Iron, total (T-Fe)	mg/L	-	-	-	0.096	0.096	0.100	0.096
Lead, total (T-Pb)	mg/L	- [2]	- [2]	0.0035	0.000963	0.00101	0.000917	0.000787
Manganese, total (T-Mn)	mg/L	-	-	-	0.0106	0.0111	0.0107	0.0101
Mercury, total (T-Hg)	mg/L	0.000016 [5]	-	-	***0.0000615*** [7]	***0.0000644*** [7]	-[9]	-[9]
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.102	0.101	0.104	0.105
Nickel, total (T-Ni)	mg/L	0.0083	-	-	<0.00250	<0.00250	<0.00250	<0.00250
Selenium, total (T-Se)	mg/L	0.002	-	-	0.000458	0.000496	0.000496	0.000475
Silver, total (T-Ag)	mg/L	0.0015	0.003	-	<0.000050	<0.000050	<0.000050	<0.000050
Thallium, total (T-Tl)	mg/L	-	-	-	<0.000050	<0.000050	<0.000050	<0.000050
Uranium, total (T-U)	mg/L	-	-	-	0.0186	0.0195	0.0184	0.0182
Vanadium, total (T-V)	mg/L	- [2]	-	0.0081	0.0026	<0.00250	0.00262	<0.00250
Zinc, total (T-Zn)	mg/L	- [2]	- [2]	0.0133	0.0223 [7]	0.0234 [7]	0.0107	0.0102
Hexavalent Chromium, total	mg/L	0.0015	-	-	<0.00050	-[8]	-[9]	-[9]
Dissolved Metals								
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000250	<0.0000300	<0.0000250	<0.0000250
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00333	0.00380	0.00468	0.00480
Iron, dissolved (D-Fe)	mg/L	-	-	-	<0.050	<0.050	<0.050	<0.050
Lead, dissolved (D-Pb)	mg/L	-	-	-	<0.000250	0.000255	0.000363	0.000364
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.0096	0.00944	0.00903	0.00976
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00250	<0.00250	<0.00250	<0.00250
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.168	0.167	0.160	0.159
Vanadium, dissolved (D-V)	mg/L	-	-	-	<0.00250	<0.00250	<0.00250	<0.00250
Zinc, dissolved (D-Zn)	mg/L	-	-	-	0.0136	0.0142	0.0081	0.0095
Polycyclic Aromatic Hydrocarbons (PAHs)								
Acenaphthene	mg/L	0.006	-	-	<0.000010	-[8]	-[9]	-[9]
Acridine	mg/L	-	-	-	<0.000010	-[8]	-[9]	-[9]
Anthracene	mg/L	-	-	-	<0.000010	-[8]	-[9]	-[9]
Benz(a)anthracene	mg/L	-	-	-	<0.000010	-[8]	-[9]	-[9]
Benzo(a)pyrene	mg/L	0.00001	-	-	<0.0000050	-[8]	-[9]	-[9]
Chrysene	mg/L	0.0001	-	-	<0.000010	-[8]	-[9]	-[9]
Fluoranthene	mg/L	-	-	-	<0.000010	-[8]	-[9]	-[9]
Fluorene	mg/L	0.012	-	-	<0.000010	-[8]	-[9]	-[9]
1-methylnaphthalene	mg/L	0.001	-	-	<0.000010	-[8]	-[9]	-[9]
2-methylnaphthalene	mg/L	0.001	-	-	<0.000010	-[8]	-[9]	-[9]
Naphthalene	mg/L	0.001	-	-	<0.000050	-[8]	-[9]	-[9]
Phenanthrene	mg/L	-	-	-	<0.000020	-[8]	-[9]	-[9]
Pyrene	mg/L	-	-	-	<0.000010	-[8]	-[9]	-[9]
Quinoline	mg/L	-	-	-	<0.000050	-[8]	-[9]	-[9]
Volatile Organic Compounds (VOCs)								
Benzene	mg/L	0.11	-	-	<0.00050	-[8]	-[9]	-[9]
Ethylbenzene	mg/L	0.25	-	-	<0.00050	-[8]	-[9]	-[9]
Methyl-tert-butyl-ether	mg/L	5	0.44	-	<0.00050	-[8]	-[9]	-[9]
Styrene	mg/L	-	-	-	<0.00050	-[8]	-[9]	-[9]
Toluene	mg/L	0.215	-	-	<0.00040	-[8]	-[9]	-[9]
Total Xylenes	mg/L	-	-	-	<0.00050	-[8]	-[9]	-[9]
Chlorobenzene	mg/L	0.025	-	-	<0.00050	-[8]	-[9]	-[9]
1,2-Dichlorobenzene	mg/L	0.042	-	-	<0.00050	-[8]	-[9]	-[9]

Notes: 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 Sedimentation Pond discharged during the monitoring period (February 9 – February 15) on February 20, 21, and 22.
[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] 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. Wet Conditions applied from February 19 through February 22.
[7] The East Catchment did not discharge on February 15.
[8] Only total and dissolved metals were tested for the WWTP-E-OUT duplicate sample collected February 15.
[9] A second set of total and dissolved metals bottles were submitted to the laboratory, excluding mercury and speciated metals, for the WWTP-E-OUT samples collected February 15. The additional metal bottles were filtered, digested and preserved by the laboratory.

Table B-4: East Catchment Effluent Analytical Results Received at the Time of Reporting.

Parameter	Unit	Lowest Applicable Guideline [1]		PE-111578 Discharge Limit	Station E500GPM-OUT	Station E500GPM-OUT	Station E500GPM-OUT	Station E500GPM-OUT
					Effluent	Effluent	Effluent	Effluent
					E500GPM-OUT	E500GPM-OUT-Dup	E500GPM-OUT-Lab [9]	E500GPM-OUT-Dup-Lab [9]
					VA25A3314-004	VA25A3314-006	VA25A3314-005	VA25A3314-007
		Long Term	Short Term		2025-02-15 14:40	2025-02-15 14:41	2025-02-15 14:50	2025-02-15 14:51
General Parameters								
pH - Field	pH units	- [2]	-	5.5 - 9.0	7.5	7.5	-[9]	-[9]
Conductivity - Field	µS/cm	-	-	-	1796	1796	-[9]	-[9]
Temperature - Field	°C	-	-	-	4.2	4.2	-[9]	-[9]
Salinity - Field	ppt	-	-	-	1.54	1.54	-[9]	-[9]
Turbidity - Field	NTU	-	-	-	0.77	0.77	-[9]	-[9]
TSS	mg/L	-	-	25 [6]	<3.0	-[8]	-[9]	-[9]
Dissolved Oxygen - Field	mg/L	≥8	-	-	14.42	14.42	-[9]	-[9]
Anions and Nutrients								
Sulphate	mg/L	-	-	-	-[8]	-[8]	-[9]	-[9]
Chloride	mg/L	-	-	-	-[8]	-[8]	-[9]	-[9]
Fluoride	mg/L	-	1.5	-	-[8]	-[8]	-[9]	-[9]
Ammonia ($N\text{-}NH_3$)	mg/L	17 [3]	110 [3]	-	-[8]	-[8]	-[9]	-[9]
Nitrite ($N\text{-}NO_2$)	mg/L	-	-	-	-[8]	-[8]	-[9]	-[9]
Nitrate ($N\text{-}NO_3$)	mg/L	3.7	339	-	-[8]	-[8]	-[9]	-[9]
Total Metals								
Aluminum, total (T-Al)	mg/L	-	-	-	0.0731	0.0726	0.0738	0.0703
Antimony, total (T-Sb)	mg/L	-	0.27 [4]	-	0.00144	0.00153	0.00148	0.00151
Arsenic, total (T-As)	mg/L	0.0125	0.0125	-	0.00233	0.00241	0.00237	0.00250
Barium, total (T-Ba)	mg/L	-	-	-	0.00607	0.00619	0.00640	0.00624
Beryllium, total (T-Be)	mg/L	0.1	-	-	<0.000100	<0.000100	<0.000100	<0.000100
Boron, total (T-B)	mg/L	1.2	-	-	<0.050	<0.050	<0.050	<0.050
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000250	<0.0000300	<0.0000300	<0.0000400
Chromium, total (T-Cr)	mg/L	-	-	-	<0.00250	<0.00250	<0.00250	<0.00250
Cobalt, total (T-Co)	mg/L	-	-	-	<0.00050	<0.00050	<0.00050	<0.00050
Copper, total (T-Cu)	mg/L	- [2]	- [2]	0.0043	<0.00250	<0.00250	<0.00250	<0.00250
Iron, total (T-Fe)	mg/L	-	-	-	0.106	0.107	0.117	0.118
Lead, total (T-Pb)	mg/L	- [2]	- [2]	0.0035	<0.000250	<0.000250	<0.000250	<0.000250
Manganese, total (T-Mn)	mg/L	-	-	-	0.0323	0.0335	0.0326	0.0312
Mercury, total (T-Hg)	mg/L	0.000016 [5]	-	-	***0.0000848*** [7]	***0.0000793*** [7]		
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.112	0.118	0.117	0.117
Nickel, total (T-Ni)	mg/L	0.0083	-	-	<0.00250	<0.00250	<0.00250	<0.00250
Selenium, total (T-Se)	mg/L	0.002	-	-	0.000484	0.000375	0.000629	0.000496
Silver, total (T-Ag)	mg/L	0.0015	0.003	-	<0.000050	<0.000050	<0.000050	<0.000050
Thallium, total (T-Tl)	mg/L	-	-	-	<0.000050	<0.000050	<0.000050	<0.000050
Uranium, total (T-U)	mg/L	-	-	-	0.0261	0.0272	0.0238	0.0252
Vanadium, total (T-V)	mg/L	- [2]	-	0.0081	<0.00250	<0.00250	<0.00250	<0.00250
Zinc, total (T-Zn)	mg/L	- [2]	- [2]	0.0133	<0.0050	<0.0050	<0.0050	<0.0050
Hexavalent Chromium, total	mg/L	0.0015	-	-				
Dissolved Metals								
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000350	<0.0000300	<0.0000250	<0.0000300
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00177	0.00176	0.00224	0.00197
Iron, dissolved (D-Fe)	mg/L	-	-	-	0.055	0.053	<0.050	<0.050
Lead, dissolved (D-Pb)	mg/L	-	-	-	<0.000250	<0.000250	<0.000250	<0.000250
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.0319	0.0319	0.0303	0.0308
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00250	<0.00250	<0.00250	<0.00250
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.227	0.232	0.229	0.241
Vanadium, dissolved (D-V)	mg/L	-	-	-	<0.00250	<0.00250	<0.00250	<0.00250
Zinc, dissolved (D-Zn)	mg/L	-	-	-	<0.0050	<0.0050	<0.0050	<0.0050
Polycyclic Aromatic Hydrocarbons (PAHs)								
Acenaphthene	mg/L	0.006	-	-	-[8]	-[8]	-[9]	-[9]
Acridine	mg/L	-	-	-	-[8]	-[8]	-[9]	-[9]
Anthracene	mg/L	-	-	-	-[8]	-[8]	-[9]	-[9]
Benz(a)anthracene	mg/L	-	-	-	-[8]	-[8]	-[9]	-[9]
Benzo(a)pyrene	mg/L	0.00001	-	-	-[8]	-[8]	-[9]	-[9]
Chrysene	mg/L	0.0001	-	-	-[8]	-[8]	-[9]	-[9]
Fluoranthene	mg/L	-	-	-	-[8]	-[8]	-[9]	-[9]
Fluorene	mg/L	0.012	-	-	-[8]	-[8]	-[9]	-[9]
1-methylnaphthalene	mg/L	0.001	-	-	-[8]	-[8]	-[9]	-[9]
2-methylnaphthalene	mg/L	0.001	-	-	-[8]	-[8]	-[9]	-[9]
Naphthalene	mg/L	0.001	-	-	-[8]	-[8]	-[9]	-[9]
Phenanthrene	mg/L	-	-	-	-[8]	-[8]	-[9]	-[9]
Pyrene	mg/L	-	-	-	-[8]	-[8]	-[9]	-[9]
Quinoline	mg/L	-	-	-	-[8]	-[8]	-[9]	-[9]
Volatile Organic Compounds (VOCs)								
Benzene	mg/L	0.11	-	-	-[8]	-[8]	-[9]	-[9]
Ethylbenzene	mg/L	0.25	-	-	-[8]	-[8]	-[9]	-[9]
Methyl-tert-butyl-ether	mg/L	5	0.44	-	-[8]	-[8]	-[9]	-[9]
Styrene	mg/L	-	-	-	-[8]	-[8]	-[9]	-[9]
Toluene	mg/L	0.215	-	-	-[8]	-[8]	-[9]	-[9]
Total Xylenes	mg/L	-	-	-	-[8]	-[8]	-[9]	-[9]
Chlorobenzene	mg/L	0.025	-	-	-[8]	-[8]	-[9]	-[9]
1,2-Dichlorobenzene	mg/L	0.042	-	-	-[8]	-[8]	-[9]	-[9]

Notes: 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 Sedimentation Pond discharged during the monitoring period (February 9 – February 15) on February 20, 21, and 22.
[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] 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. Wet Conditions applied from February 19 through February 22.
[7] The East Catchment did not discharge on February 15.
[8] Only field and physical parameters, total and dissolved metals were tested for the E500GPM-OUT sample collected February 15. Only total and dissolved metals were tested for the E500GPM-OUT duplicate sample collected February 15.
[9] A second set of total and dissolved metals bottles were submitted to the laboratory, excluding mercury and speciated metals, for the E500GPM-OUT samples collected February 15. The additional metal bottles were filtered, digested and preserved by the laboratory.

Table B-5: East Catchment Effluent Analytical Results Received at the Time of Reporting.

Parameter	Unit	Lowest Applicable Guideline [1]		PE-111578 Discharge Limit	Station WWTP-E-OUT	Station SP-E-OUT	Station SP-E-OUT
					Effluent	Effluent	Effluent
					WWTP-E-OUT	SP-E-OUT	SP-E-OUT-Dup
					VA25A3676-006	VA25A3676-001	VA25A3676-002
		Long Term	Short Term		2025-02-20 15:04	2025-02-20 8:38	2025-02-20 8:30
General Parameters							
pH - Field	pH units	- [2]	-	5.5 - 9.0	6.8	7.7	7.7
Conductivity - Field	µS/cm	-	-	-	1744	1138	1138
Temperature - Field	°C	-	-	-	8.0	7.4	7.4
Salinity - Field	ppt	-	-	-	1.34	0.87	0.87
Turbidity - Field	NTU	-	-	-	3.04	2.47	2.47
TSS	mg/L	-	-	75 [6]	<3.0	<3.0	<3.0
Dissolved Oxygen - Field	mg/L	≥8	-	-	9.66	14.31	14.31
Anions and Nutrients							
Sulphate	mg/L	-	-	-	1090	1280	1280
Chloride	mg/L	-	-	-	28.2	17.5	17.7
Fluoride	mg/L	-	1.5	-	<0.400	<0.400	<0.400
Ammonia (N-NH_3)	mg/L	7.2-29 [3]	48-191 [3]	-	<0.0050	<0.0050	<0.0050
Nitrite (N-NO_2)	mg/L	-	-	-	0.0262	0.0233	0.0238
Nitrate (N-NO_3)	mg/L	3.7	339	-	0.589	0.406	0.416
Total Metals							
Aluminum, total (T-Al)	mg/L	-	-	-	1.23	0.176	0.167
Antimony, total (T-Sb)	mg/L	-	0.27 [4]	-	0.00149	0.00143	0.00144
Arsenic, total (T-As)	mg/L	0.0125	0.0125	-	0.00117	0.0011	0.00115
Barium, total (T-Ba)	mg/L	-	-	-	0.0375	0.0074	0.00738
Beryllium, total (T-Be)	mg/L	0.1	-	-	<0.000040	<0.000040	<0.000040
Boron, total (T-B)	mg/L	1.2	-	-	0.112	<0.020	<0.020
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000550	<0.0000300	<0.0000350
Chromium, total (T-Cr)	mg/L	-	-	-	0.00571	<0.00100	<0.00100
Cobalt, total (T-Co)	mg/L	-	-	-	0.00079	<0.00020	<0.00020
Copper, total (T-Cu)	mg/L	- [2]	- [2]	0.0043	0.00377	0.00201	0.00199
Iron, total (T-Fe)	mg/L	-	-	-	1.14	0.141	0.137
Lead, total (T-Pb)	mg/L	- [2]	- [2]	0.0035	0.0016	0.000589	0.000498
Manganese, total (T-Mn)	mg/L	-	-	-	0.241	0.0407	0.0411
Mercury, total (T-Hg)	mg/L	0.000016 [5]	-	-	***0.000223***	***0.0000268***	***0.0000294***
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.0862	0.113	0.112
Nickel, total (T-Ni)	mg/L	0.0083	-	-	0.00127	<0.00100	<0.00100
Selenium, total (T-Se)	mg/L	0.002	-	-	0.00045	0.000457	0.000498
Silver, total (T-Ag)	mg/L	0.0015	0.003	-	<0.000020	<0.000020	<0.000020
Thallium, total (T-Tl)	mg/L	-	-	-	0.000027	0.000034	0.000034
Uranium, total (T-U)	mg/L	-	-	-	0.021	0.0164	0.0167
Vanadium, total (T-V)	mg/L	- [2]	-	0.0081	0.00311	0.0016	0.00166
Zinc, total (T-Zn)	mg/L	- [2]	- [2]	0.0133	0.0152 [7]	<0.0060	<0.0060
Hexavalent Chromium, total	mg/L	0.0015	-	-	<0.00050	<0.00050	<0.00050
Dissolved Metals							
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000350	<0.0000300	<0.0000300
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00130	0.00158	0.00158
Iron, dissolved (D-Fe)	mg/L	-	-	-	<0.020	0.023	<0.020
Lead, dissolved (D-Pb)	mg/L	-	-	-	0.000148	<0.000100	<0.000100
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.217	0.0383	0.0373
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00100	<0.00100	<0.00100
Strontium, dissolved (D-Sr)	mg/L	-	-	-	1.09	0.298	0.292
Vanadium, dissolved (D-V)	mg/L	-	-	-	<0.00100	0.00128	0.00128
Zinc, dissolved (D-Zn)	mg/L	-	-	-	0.0073	0.0025	0.0023
Polycyclic Aromatic Hydrocarbons (PAHs)							
Acenaphthene	mg/L	0.006	-	-	<0.000010	<0.000010	<0.000010
Acridine	mg/L	-	-	-	<0.000010	<0.000010	<0.000010
Anthracene	mg/L	-	-	-	<0.000010	<0.000010	<0.000010
Benz(a)anthracene	mg/L	-	-	-	<0.000010	<0.000010	<0.000010
Benzo(a)pyrene	mg/L	0.00001	-	-	<0.0000050	<0.0000050	<0.0000050
Chrysene	mg/L	0.0001	-	-	<0.000010	<0.000010	<0.000010
Fluoranthene	mg/L	-	-	-	<0.000010	<0.000010	<0.000010
Fluorene	mg/L	0.012	-	-	<0.000010	<0.000010	<0.000010
1-methylnaphthalene	mg/L	0.001	-	-	<0.000010	<0.000010	<0.000010
2-methylnaphthalene	mg/L	0.001	-	-	<0.000010	<0.000010	<0.000010
Naphthalene	mg/L	0.001	-	-	<0.000050	<0.000050	<0.000050
Phenanthrene	mg/L	-	-	-	<0.000020	<0.000020	<0.000020
Pyrene	mg/L	-	-	-	<0.000010	<0.000010	<0.000010
Quinoline	mg/L	-	-	-	0.000077	<0.000050	<0.000050
Volatile Organic Compounds (VOCs)							
Benzene	mg/L	0.11	-	-	<0.00050	<0.00050	<0.00050
Ethylbenzene	mg/L	0.25	-	-	<0.00050	<0.00050	<0.00050
Methyl-tert-butyl-ether	mg/L	5	0.44	-	<0.00050	<0.00050	<0.00050
Styrene	mg/L	-	-	-	<0.00050	<0.00050	<0.00050
Toluene	mg/L	0.215	-	-	<0.00040	<0.00040	<0.00040
Total Xylenes	mg/L	-	-	-	<0.00050	<0.00050	<0.00050
Chlorobenzene	mg/L	0.025	-	-	<0.00050	<0.00050	<0.00050
1,2-Dichlorobenzene	mg/L	0.042	-	-	<0.00050	<0.00050	<0.00050

Notes: 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 Sedimentation Pond discharged during the monitoring period (February 9 – February 15) on February 20, 21, and 22.
[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] 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. Wet Conditions applied from February 19 through February 22.
[7] East WWTP treated effluent was recirculated to the East Sedimentation Pond on February 20. East Sedimentation Pond effluent clarified through the E500GPM TSS Settling System discharged to Howe Sound at SP-E-OUT on February 20 and effluent water quality results met PE-111578 discharge limits.

Table B-6: 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 Guideline[1]					0.0001 [2]	0.013[3,4]
Station	**Water Type**	**Sample ID**	**Lab ID**	**Sampling Date**		
Influent						
SP-E-IN	Influent	SP-E-IN	VA25A2781-002	2025-02-07	0.000063	0.00825

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

Table B-7: East Catchment Field Measurements Collected During the Monitoring Period (February 16 – February 22).

Parameter			Temp.	Dissolved Oxygen (DO)	Salinity	Turbidity	Estimated TSS [3]	pH	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-E-IN	Influent	2025-02-16 12:20	4.3	14.78	1.50	5.45	9.2	7.4	1752	No
SP-E-IN	Influent	2025-02-17 13:11	5.6	14.44	1.58	11.83	15.6	7.1	1909	No
SP-E-IN	Influent	2025-02-18 14:28	7.0	13.90	1.67	13.89	17.6	7.0	2098	No
SP-E-IN	Influent	2025-02-19 13:37	7.0	12.79	1.62	28.45	32.2	7.4	2032	No
SP-E-IN	Influent	2025-02-20 7:55	7.1	13.00	1.51	17.51	21.3	7.0	1912	No
SP-E-IN	Influent	2025-02-20 15:34	7.9	11.94	1.56	38.66	42.4	6.8	2014	No
SP-E-IN	Influent	2025-02-21 13:26	6.4	12.59	0.73	96.75	100.5	7.3	938	No
SP-E-IN	Influent	2025-02-22 14:32	5.9	12.48	0.28	360.96	364.7	7.6	363	No
WWTP-E-IN	Influent	2025-02-16 12:08	4.3	14.57	1.54	3.02	6.8	7.4	1801	No
WWTP-E-IN	Influent	2025-02-17 12:57	6.3	13.98	1.59	6.67	10.4	7.1	1961	No
WWTP-E-IN	Influent	2025-02-18 14:13	7.2	13.88	1.67	9.75	13.5	7.1	2100	No
WWTP-E-IN	Influent	2025-02-19 13:25	6.8	12.75	1.65	23.56	27.3	7.1	2054	No
WWTP-E-IN	Influent	2025-02-20 8:07	6.7	12.85	1.58	24.31	28.1	7.2	1974	No
WWTP-E-IN	Influent	2025-02-20 14:45	8.9	10.30	0.61	3.45	7.2	7.0	849	No
WWTP-E-IN	Influent	2025-02-21 13:40	5.6	10.54	1.47	12.98	16.7	7.0	1784	No
WWTP-E-IN	Influent	2025-02-22 14:52	6.3	12.44	0.40	88.50	92.2	6.7	522	No
E500GPM-IN	Influent	2025-02-16 12:35	4.3	14.42	1.55	4.63	8.4	7.5	1805	No
E500GPM-IN	Influent	2025-02-17 13:21	5.6	14.53	1.58	6.12	9.9	7.1	1908	No
E500GPM-IN	Influent	2025-02-18 14:33	7.2	13.79	1.67	26.45	30.2	7.3	2110	No
E500GPM-IN	Influent	2025-02-19 13:39	6.9	13.80	1.65	21.95	25.7	7.4	2067	No
E500GPM-IN	Influent	2025-02-20 7:53	7.0	14.11	1.60	26.02	29.8	7.4	2016	No
E500GPM-IN	Influent	2025-02-21 13:19	6.8	13.35	1.38	47.81	51.6	7.7	1738	No
E500GPM-IN	Influent	2025-02-22 14:39	6.2	13.75	0.40	85.76	89.5	7.4	516	No
Effluent [5]										
SP-E-OUT	Effluent	2025-02-20 8:38	7.4	14.31	0.87	2.47	6.2	7.7	1138	No
SP-E-OUT	Effluent	2025-02-21 13:46	7.1	12.69	0.65	1.45	5.2	7.5	854	No
SP-E-OUT	Effluent	2025-02-22 14:56	6.5	13.05	0.40	1.21	5.0	7.1	523	No
WWTP-E-OUT	Effluent	2025-02-16 12:04	4.6	13.59	1.54	2.40	6.1	6.3	1816	No
WWTP-E-OUT	Effluent	2025-02-17 13:07	5.9	12.97	1.60	2.55	6.3	6.3	1957	No
WWTP-E-OUT	Effluent	2025-02-18 14:20	6.9	10.98	1.68	0.63	4.4	6.3	2105	No
WWTP-E-OUT	Effluent	2025-02-19 13:31	7.0	11.30	1.49	2.69	6.4	6.8	1878	No
WWTP-E-OUT	Effluent	2025-02-20 8:09	6.9	12.85	1.32	3.85	7.6	6.9	1670	No
WWTP-E-OUT	Effluent	2025-02-20 15:04	8.0	9.66	1.34	3.04	6.8	6.8	1744	No
WWTP-E-OUT	Effluent	2025-02-21 13:36	7.6	9.66	1.47	5.07	8.8	6.2	1888	No
WWTP-E-OUT	Effluent	2025-02-22 14:48	6.6	12.74	0.75	2.47	6.2	6.1	971	No
E500GPM-OUT	Effluent	2025-02-16 12:28	4.5	15.23	1.54	0.97	4.7	7.7	1813	No
E500GPM-OUT	Effluent	2025-02-17 13:17	6.8	14.46	1.58	2.29	6.0	7.4	1975	No
E500GPM-OUT	Effluent	2025-02-18 14:22	7.3	14.01	1.66	2.05	5.8	7.4	2107	No
E500GPM-OUT	Effluent	2025-02-19 13:34	7.3	12.50	1.65	7.33	11.1	7.2	2087	No
E500GPM-OUT	Effluent	2025-02-20 7:49	8.9	13.44	1.63	1.23	5.0	7.6	2149	No
E500GPM-OUT	Effluent	2025-02-21 13:22	7.2	12.54	1.42	2.11	5.9	7.6	1800	No
E500GPM-OUT	Effluent	2025-02-22 14:41	6.5	12.98	0.40	2.39	6.1	7.3	523	No

Notes:
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.
[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.
[5] There was no discharge at the authorized discharge location (SP-E-OUT) February 16 – February 19, therefore daily field measurements for SP-E-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 Wet Conditions. Wet Conditions applied from February 19 through February 22.

Table B-8: East Catchment Daily Discharge Volumes for the Monitoring Period (February 16 – February 22).

	East Sedimentation Pond Effluent	East TSS Settling System (E500GPM) Clarified Effluent (Station E500GPM-OUT)	East WWTP Treated Effluent (Station WWTP-E-OUT)	Discharge to Howe Sound (Station SP-E-OUT)
Unit	**m^3**	**m^3**	**m^3**	**m^3**
PE-111578 Discharge Limit	- [1]	- [1]	1100	- [1]
Date				
2025-02-16	0	1,924 [2]	554 [3]	0
2025-02-17	0	1,895 [2]	535 [3]	0
2025-02-18	0	1,753 [2]	549 [3]	0
2025-02-19	0	1,146 [2]	621 [3]	0
2025-02-20	0	1,680 [2]	395 [3]	1,258
2025-02-21	0	2,053 [2]	249 [3]	1,279
2025-02-22	0	2,321 [2]	544 [3]	2,074

Notes:
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.
[1] The annual average authorized discharge rate from the East Sedimentation Pond is 650 m^3/day. As noted in PE-111578 Condition 2.1.4, the actual discharge rate may deviate from the annual average rate due to annual variations in precipitation amounts within the catchment area. Therefore, the annual average authorized discharge rate is not evaluated as a discharge limit.
[2] Clarified effluent from the E500GPM TSS Settling System were recirculated to the East Sedimentation Pond on February 16, 17, 18, and 19. A total of 1,258 m^3 were discharged to Howe Sound at SP-E-OUT and a total of 422 m^3 were recirculated to the West Sedimentation Pond on February 20. A total of 1,279 m^3 were discharged to Howe Sound at SP-E-OUT and a total of 774 m^3 were recirculated to the West Sedimentation Pond on February 21. A total of 2,074 m^3 were discharged to Howe Sound at SP-E-OUT and a total of 247 m^3 were recirculated to the West Sedimentation Pond on February 22.
[3] East WWTP treated effluent was recirculated to the East Sedimentation Pond.

Appendix C: West Catchment Monitoring Results

Table C-1: West Catchment Contact Water Influent Analytical Results Received at the Time of Reporting.

Parameter	Unit	Lowest Applicable Guideline [1]		PE-111578 Discharge Limit	Station SP-W-IN Influent SP-W-IN VA25A3314-001 2025-02-15 11:15	Station SP-W-IN Influent SP-W-IN VA25A3413-001 2025-02-18 13:01	Station SP-W-IN Influent SP-W-IN VA25A3555-001 2025-02-19 13:59
		Long Term	Short Term				
General Parameters							
pH - Field	pH units	- [2]	-	5.5 - 9.0	8.4	7.3	7.5
Conductivity - Field	µS/cm	-	-	-	273	188	225
Temperature - Field	℃	-	-	-	2.6	6.3	5.9
Salinity - Field	ppt	-	-	-	0.23	0.14	0.17
Turbidity - Field	NTU	-	-	-	9.95	5.09	48.61
TSS	mg/L	-	-	25 or 75 [6]	11	4.1	53.2
Dissolved Oxygen - Field	mg/L	≥8	-	-	16.21	14.25	14.00
Anions and Nutrients							
Sulphate	mg/L	-	-	-	10.4	10.1	-[7]
Chloride	mg/L	-	-	-	14.4	14.7	-[7]
Fluoride	mg/L	-	1.5	-	0.11	0.097	-[7]
Ammonia ($N\text{-}NH_3$)	mg/L	1.7-18 [3]	11-121 [3]	-	0.0291	0.0389	-[7]
Nitrite ($N\text{-}NO_2$)	mg/L	-	-	-	0.0168	0.0165	-[7]
Nitrate ($N\text{-}NO_3$)	mg/L	3.7	339	-	0.476	0.461	-[7]
Total Metals							
Aluminum, total (T-Al)	mg/L	-	-	-	0.764	0.354	-[7]
Antimony, total (T-Sb)	mg/L	-	0.27 [4]	-	0.00084	0.00092	-[7]
Arsenic, total (T-As)	mg/L	0.0125	0.0125	-	0.00133	0.00116	-[7]
Barium, total (T-Ba)	mg/L	-	-	-	0.00731	0.00628	-[7]
Beryllium, total (T-Be)	mg/L	0.1	-	-	<0.000020	<0.000020	-[7]
Boron, total (T-B)	mg/L	1.2	-	-	<0.010	0.015	-[7]
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	0.0000161	0.000016	-[7]
Chromium, total (T-Cr)	mg/L	-	-	-	<0.00050	<0.00050	-[7]
Cobalt, total (T-Co)	mg/L	-	-	-	0.00023	0.00015	-[7]
Copper, total (T-Cu)	mg/L	- [2]	- [2]	0.0043	0.00198	0.00131	-[7]
Iron, total (T-Fe)	mg/L	-	-	-	0.482	0.217	-[7]
Lead, total (T-Pb)	mg/L	- [2]	- [2]	0.0035	0.00164	0.000743	-[7]
Manganese, total (T-Mn)	mg/L	-	-	-	0.0333	0.0503	-[7]
Mercury, total (T-Hg)	mg/L	0.000016 [5]	-	-	0.00000254	-[7]	0.00000896
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.0156	0.0113	-[7]
Nickel, total (T-Ni)	mg/L	0.0083	-	-	<0.00050	<0.00050	-[7]
Selenium, total (T-Se)	mg/L	0.002	-	-	0.000098	0.000112	-[7]
Silver, total (T-Ag)	mg/L	0.0015	0.003	-	<0.000010	<0.000010	-[7]
Thallium, total (T-Tl)	mg/L	-	-	-	0.000013	0.000021	-[7]
Uranium, total (T-U)	mg/L	-	-	-	0.0136	0.0067	-[7]
Vanadium, total (T-V)	mg/L	- [2]	-	0.0081	0.00155	0.00119	-[7]
Zinc, total (T-Zn)	mg/L	- [2]	- [2]	0.0133	0.0036	0.0047	-[7]
Hexavalent Chromium, total	mg/L	0.0015	-	-	<0.00050	<0.00050	-[7]
Dissolved Metals							
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000050	<0.0000150	-[7]
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00082	0.00068	-[7]
Iron, dissolved (D-Fe)	mg/L	-	-	-	<0.010	<0.010	-[7]
Lead, dissolved (D-Pb)	mg/L	-	-	-	<0.000050	<0.000050	-[7]
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.0177	0.0416	-[7]
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00050	<0.00050	-[7]
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.0439	0.0636	-[7]
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00067	0.00096	-[7]
Zinc, dissolved (D-Zn)	mg/L	-	-	-	<0.0010	0.0020	-[7]
Polycyclic Aromatic Hydrocarbons (PAHs)							
Acenaphthene	mg/L	0.006	-	-	0.000044	0.000045	-[7]
Acridine	mg/L	-	-	-	<0.000010	<0.000010	-[7]
Anthracene	mg/L	-	-	-	<0.000010	<0.000010	-[7]
Benz(a)anthracene	mg/L	-	-	-	<0.000010	<0.000010	-[7]
Benzo(a)pyrene	mg/L	0.00001	-	-	<0.0000050	<0.0000050	-[7]
Chrysene	mg/L	0.0001	-	-	<0.000010	<0.000010	-[7]
Fluoranthene	mg/L	-	-	-	0.000012	<0.000010	-[7]
Fluorene	mg/L	0.012	-	-	0.000018	0.000016	-[7]
1-methylnaphthalene	mg/L	0.001	-	-	0.00002	0.000013	-[7]
2-methylnaphthalene	mg/L	0.001	-	-	0.000024	<0.000010	-[7]
Naphthalene	mg/L	0.001	-	-	0.000062	<0.000050	-[7]
Phenanthrene	mg/L	-	-	-	<0.000020	<0.000020	-[7]
Pyrene	mg/L	-	-	-	<0.000010	<0.000010	-[7]
Quinoline	mg/L	-	-	-	<0.000050	<0.000050	-[7]
Volatile Organic Compounds (VOCs)							
Benzene	mg/L	0.11	-	-	<0.00050	<0.00050	-[7]
Ethylbenzene	mg/L	0.25	-	-	<0.00050	<0.00050	-[7]
Methyl-tert-butyl-ether	mg/L	5	0.44	-	<0.00050	<0.00050	-[7]
Styrene	mg/L	-	-	-	<0.00050	<0.00050	-[7]
Toluene	mg/L	0.215	-	-	<0.00040	<0.00040	-[7]
Total Xylenes	mg/L	-	-	-	<0.00050	<0.00050	-[7]
Chlorobenzene	mg/L	0.025	-	-	<0.00050	<0.00050	-[7]
1,2-Dichlorobenzene	mg/L	0.042	-	-	<0.00050	<0.00050	-[7]

Notes: 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 West Sedimentation Pond Discharge Limit.
The West Sedimentation Pond discharged during the monitoring period (January 26 – February 1) on February 18, 20, 21, and 22.
[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] 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. Wet Conditions applied from February 19 through February 22.
[7] The total mercury sample bottle for the SP-W-IN sample collected February 18 was broken in transit to the laboratory; therefore, testing could not be completed. Another sample for SP-W-IN was collected February 19 and tested for field and physical parameters, total and dissolved mercury.

Table C-2: West Catchment Contact Water Effluent Analytical Results Received at the Time of Reporting.

Parameter	Unit	Lowest Applicable Guideline [1]		PE-111578 Discharge Limit	Station SP-W-OUT
					Influent
					SP-W-OUT
					VA25A3413-002
		Long Term	Short Term		2025-02-18 12:20
General Parameters					
pH - Field	pH units	- [2]	-	5.5 - 9.0	7.1
Conductivity - Field	µS/cm	-	-	-	188
Temperature - Field	°C	-	-	-	6.1
Salinity - Field	ppt	-	-	-	0.14
Turbidity - Field	NTU	-	-	-	0.62
TSS	mg/L	-	-	25 [6]	<3.0
Dissolved Oxygen - Field	mg/L	≥8	-	-	15.0
Anions and Nutrients					
Sulphate	mg/L	-	-	-	9.69
Chloride	mg/L	-	-	-	14.9
Fluoride	mg/L	-	1.5	-	0.09
Ammonia ($N\text{-}NH_3$)	mg/L	29 [3]	191 [3]	-	0.0431
Nitrite ($N\text{-}NO_2$)	mg/L	-	-	-	0.0163
Nitrate ($N\text{-}NO_3$)	mg/L	3.7	339	-	0.466
Total Metals					
Aluminum, total (T-Al)	mg/L	-	-	-	0.0059
Antimony, total (T-Sb)	mg/L	-	0.27 [4]	-	0.00089
Arsenic, total (T-As)	mg/L	0.0125	0.0125	-	0.00091
Barium, total (T-Ba)	mg/L	-	-	-	0.00332
Beryllium, total (T-Be)	mg/L	0.1	-	-	<0.000020
Boron, total (T-B)	mg/L	1.2	-	-	0.013
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000150
Chromium, total (T-Cr)	mg/L	-	-	-	<0.00050
Cobalt, total (T-Co)	mg/L	-	-	-	<0.00010
Copper, total (T-Cu)	mg/L	- [2]	- [2]	0.0043	0.00076
Iron, total (T-Fe)	mg/L	-	-	-	<0.010
Lead, total (T-Pb)	mg/L	- [2]	- [2]	0.0035	0.000173
Manganese, total (T-Mn)	mg/L	-	-	-	0.0465
Mercury, total (T-Hg)	mg/L	0.000016 [5]	-	-	<0.00000050
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.00936
Nickel, total (T-Ni)	mg/L	0.0083	-	-	<0.00050
Selenium, total (T-Se)	mg/L	0.002	-	-	0.00012
Silver, total (T-Ag)	mg/L	0.0015	0.003	-	<0.000010
Thallium, total (T-Tl)	mg/L	-	-	-	0.00002
Uranium, total (T-U)	mg/L	-	-	-	0.00538
Vanadium, total (T-V)	mg/L	- [2]	-	0.0081	<0.00050
Zinc, total (T-Zn)	mg/L	- [2]	- [2]	0.0133	0.0046
Hexavalent Chromium, total	mg/L	0.0015	-	-	<0.00050
Dissolved Metals					
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000100
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00096
Iron, dissolved (D-Fe)	mg/L	-	-	-	0.013
Lead, dissolved (D-Pb)	mg/L	-	-	-	0.000198
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.0454
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00050
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.0612
Vanadium, dissolved (D-V)	mg/L	-	-	-	<0.00050
Zinc, dissolved (D-Zn)	mg/L	-	-	-	0.0166
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: 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 West Sedimentation Pond Discharge Limit.
The West Sedimentation Pond discharged during the monitoring period (January 26 – February 1) on February 18, 20, 21, and 22.
[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] 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. Wet Conditions applied from February 19 through February 22.

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]	0.0013 [3,4]
Station	**Water Type**	**Sample ID**	**Lab ID**	**Sampling Date**		
Influent						
SP-W-IN	Influent	SP-W-IN	VA25A2781-001	2025-02-07	0.000042	0.00056

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

Table C-4: West Catchment Field Measurements Collected During the Monitoring Period (February 16 – February 22).

Parameter			**Temperature**	**Dissolved Oxygen (DO)**	**Salinity**	**Turbidity**	**Estimated TSS [3]**	**pH**	**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	2025-02-16 12:49	3.4	15.63	0.11	7.92	11.7	7.6	137	No
SP-W-IN	Influent	2025-02-17 10:57	4.5	15.37	0.12	4.33	8.1	7.1	155	No
SP-W-IN	Influent	2025-02-18 13:01	6.3	14.25	0.14	5.09	8.8	7.3	188	No
SP-W-IN	Influent	2025-02-19 13:59	5.9	14.00	0.17	48.61	52.4	7.5	225	No
SP-W-IN	Influent	2025-02-20 9:44	5.0	14.09	0.10	159.64	163.4	8.0	135	No
SP-W-IN	Influent	2025-02-21 12:50	4.9	13.65	0.06	247.95	251.7	8.9	79	No
SP-W-IN	Influent	2025-02-22 16:46	5.1	13.32	0.05	160.86	164.6	9.1	69	No
W500GPM-IN	Influent	2025-02-16 13:00	2.0	15.22	0.11	7.16	10.9	7.0	137	No
W500GPM-IN	Influent	2025-02-17 11:14	4.0	14.72	0.13	5.76	9.5	7.1	158	No
W500GPM-IN	Influent	2025-02-18 13:41	5.5	14.26	0.14	2.96	6.7	7.0	187	No
W500GPM-IN	Influent	2025-02-20 9:51	5.5	14.02	0.14	61.25	65.0	7.3	185	Yes
W500GPM-IN	Influent	2025-02-21 12:40	6.6	13.17	0.08	135.37	139.1	7.9	110	No
W500GPM-IN	Influent	2025-02-22 16:54	5.3	13.47	0.06	224.55	228.3	9.2	81	No
ESC-W-IN	Influent	2025-02-20 9:40	5.5	14.11	0.14	61.23	65.0	7.4	181	No
ESC-W-IN	Influent	2025-02-21 13:04	5.5	13.04	0.08	3.49	7.2	8.0	110	No
ESC-W-IN	Influent	2025-02-22 16:42	4.9	13.38	0.06	128.47	132.2	9.2	80	No
Effluent [5]										
SP-W-OUT	Effluent	2025-02-18 12:20	6.1	15.00	0.14	0.62	4.4	7.1	188	No
SP-W-OUT	Effluent	2025-02-20 9:36	5.7	14.91	0.15	1.91	5.7	7.3	197	No
SP-W-OUT	Effluent	2025-02-21 13:01	5.6	13.52	0.08	1.73	5.5	7.9	14	No
SP-W-OUT	Effluent	2025-02-22 16:32	5.1	13.54	0.07	2.21	6.0	8.8	86	No
SP-W-OUT	Effluent	2025-02-22 16:39	5.2	13.59	0.06	2.09	5.8	8.8	85	No
W500GPM-OUT	Effluent	2025-02-16 12:57	3.7	16.59	0.11	1.36	5.1	7.6	139	No
W500GPM-OUT	Effluent	2025-02-17 11:12	4.9	16.06	0.12	0.85	4.6	7.2	162	No
W500GPM-OUT	Effluent	2025-02-18 13:39	6.0	14.52	0.14	0.06	3.8	7.2	191	No
W500GPM-OUT	Effluent	2025-02-20 9:49	5.8	14.84	0.15	2.80	6.5	7.5	194	No
W500GPM-OUT	Effluent	2025-02-21 12:43	5.7	13.74	0.08	1.85	5.6	7.9	109	No
W500GPM-OUT	Effluent	2025-02-22 16:49	5.2	13.66	0.06	2.73	6.5	8.9	84	No
ESC-W-OUT	Effluent	2025-02-20 9:31	5.6	13.72	0.13	3.40	7.1	7.5	166	No
ESC-W-OUT	Effluent	2025-02-21 12:57	5.7	13.88	0.08	3.45	7.2	8.1	111	No
ESC-W-OUT	Effluent	2025-02-22 16:27	4.9	13.13	0.07	2.98	6.7	8.7	87	No

Notes: 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 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 * [turbidity as NTU] + 3.
[4] Daily field measurements for station SP-W-IN were collected from cell 1 of the West Sedimentation Pond.
[5] There was no discharge at the authorized discharge location (SP-W-OUT) February 16, 17, and 19, therefore daily field measurements 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. Wet Conditions applied from February 19 through February 22.

Table C-5: West Catchment Daily Discharge Volumes for the Monitoring Period (February 16 – February 22).

	West Sedimentation Pond Effluent	**West TSS Settling System (W500GPM) Clarified Effluent (Station W500GPM-OUT)**	**West TSS Settling System (ESC) Clarified Effluent (Station ESC-W-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	- [2]	- [2]	- [2]	120	- [2]
Date					
2025-02-16	0	1,985 [3]	0	0	0
2025-02-17	0	1,948 [3]	0	0	0
2025-02-18	0	1,916 [3]	0	0	1,103
2025-02-19	0	1,991 [3]	0	0	0
2025-02-20	0	2,159 [3]	544 [4]	0	2,159
2025-02-21	0	2,119 [3]	705 [4]	0	1,855
2025-02-22	0	2,661 [3]	900 [4]	0	3,312

Notes:
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 West Sedimentation Pond Discharge Limit.
[1] The West WWTP is not being operated, therefore discharges are not expected from this facility.
[2] The annual average authorized discharge rate from the West Sedimentation Pond is 310 m^3/day. As noted in PE-111578 Condition 2.1.4, the actual discharge rate may deviate from the annual average rate due to annual variations in precipitation amounts within the catchment area. Therefore, the annual average authorized discharge rate is not evaluated as a discharge limit.
[3] Clarified effluent from the W500GPM TSS Settling System was recirculated to the West Sedimentation Pond on February 16, 17, and 19. A total of 1,103 m^3 were discharged to Howe Sound at SP-W-OUT and a total of 813 m^3 were recirculated to the West Sedimentation Pond on February 18. A total of 1,855 m^3 were discharged to Howe Sound at SP-W-OUT and a total of 264 m^3 were recirculated to the West Sedimentation Pond on February 21. On February 20 and 22, all of the volume clarified through the W500GPM system was discharged to Howe Sound.
[4] Clarified effluent from the West 150GPM (ESC) TSS Settling System was recirculated to the West Sedimentation Pond on February 20 and 21. A total of 651 m^3 were discharged to Howe Sound at SP-W-OUT and a total of 249 m^3 were recirculated to the West Sedimentation Pond on February 22.

Appendix D: Marine Water Receiving Environment Results

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

Parameter	Unit	Lowest Applicable Guideline [1]		Station IDZ-E1			Station IDZ-E2		
				0.5 m Below Surface	2 m Below Surface	2 m Above Seafloor	0.5 m Below Surface	2 m Below Surface	2 m Above Seafloor
				IDZ-E1-0.5	IDZ-E1-2m	IDZ-E1-SF	IDZ-E2-0.5	IDZ-E2-2m	IDZ-E2-SF
				VA25A3677-001	VA25A3677-002	VA25A3677-003	VA25A3677-004	VA25A3677-005	VA25A3677-006
		Long Term	Short Term	2025-02-20 9:04	2025-02-20 9:05	2025-02-20 9:06	2025-02-20 11:23	2025-02-20 11:23	2025-02-20 11:25
General Parameters									
pH - Field	pH units	7.0 - 8.7	-	7.79	7.78	7.7	7.84	7.81	7.66
Specific Conductivity - Field	µS/cm	-	-	23637	26823	30212	21313	27817	30748
Temperature - Field	℃	-	-	6.7	7.0	7.5	6.5	7.0	7.8
Salinity - Field	ppt	Narrative [2]	-	22.72	25.85	29.05	20.37	26.88	29.35
Turbidity - Field	NTU	3.25 [2]	9.25 [2]	1.37	1.24	0.93	1.24	1.17	0.89
TSS	mg/L	7.0 [2]	27.0 [2]	2.8	2.1	<2.0	6.3	<2.0	<2.0
Dissolved Oxygen - Field	mg/L	>=8	-	10.79	10.55	9.57	10.4	10.13	8.66
Anions and Nutrients									
Sulphate	mg/L	-	-	828	1680	2200	1310	1930	2210
Chloride	mg/L	-	-	5850	12100	15800	9510	14000	16000
Fluoride	mg/L	-	1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ammonia (N-NH_3)	mg/L	4.7-8.1 [3]	31-54 [3]	0.0066	<0.0050	<0.0050	0.0109	0.0063	0.0267
Nitrite (N-NO_2)	mg/L	-	-	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Nitrate (N-NO_3)	mg/L	3.7	339	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Total Metals									
Aluminum, total (T-Al)	mg/L	-	-	0.0953	0.0186	0.0073	0.0204	0.0132	0.0115
Antimony, total (T-Sb)	mg/L	-	0.27 [4]	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Arsenic, total (T-As)	mg/L	0.0125	0.0125	0.00073	0.00136	0.00157	0.00098	0.00144	0.0016
Barium, total (T-Ba)	mg/L	-	-	0.0085	0.0105	0.0097	0.0111	0.0107	0.0099
Beryllium, total (T-Be)	mg/L	0.1	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Boron, total (T-B)	mg/L	1.2	-	***1.76***	***3.21***	***3.97***	***2.55***	***3.48***	***4.03***
Cadmium, total (T-Cd)	mg/L	0.00012	-	0.000041	0.000064	0.000076	0.000048	0.000075	0.000084
Chromium, total (T-Cr)	mg/L	-	-	0.00051	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, total (T-Co)	mg/L	-	-	0.000072	0.000083	0.000071	0.000092	0.000077	0.000076
Copper, total (T-Cu)	mg/L	0.002	0.003	0.00115	0.00088	<0.00050	0.00064	0.00082	0.00057
Iron, total (T-Fe)	mg/L	-	-	0.090	0.058	0.016	0.10	0.049	0.025
Lead, total (T-Pb)	mg/L	0.002	0.14	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Manganese, total (T-Mn)	mg/L	-	-	0.00758	0.00601	0.00259	0.00994	0.00518	0.00273
Mercury, total (T-Hg)	mg/L	0.000016 [5]	-	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total (T-Mo)	mg/L	-	-	0.00658	0.00756	0.00878	0.00595	0.00777	0.00862
Nickel, total (T-Ni)	mg/L	0.0083	-	0.00074	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Selenium, total (T-Se)	mg/L	0.002	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Silver, total (T-Ag)	mg/L	0.0015	0.003	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Thallium, total (T-Tl)	mg/L	-	-	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Uranium, total (T-U)	mg/L	-	-	0.00156	0.00191	0.00235	0.00154	0.00208	0.00228
Vanadium, total (T-V)	mg/L	0.005	-	0.0012	0.00127	0.00151	0.00124	0.00142	0.00148
Zinc, total (T-Zn)	mg/L	0.01	0.055	<0.0030	0.0035	<0.0030	<0.0030	0.0032	<0.0030
Hexavalent Chromium, total	mg/L	0.0015	-	<0.00150	<0.00150	<0.00150	<0.00150	<0.00150	<0.00150
Dissolved Metals									
Cadmium, dissolved (D-Cd)	mg/L	-	-	0.000052	0.000059	0.000065	0.000037	0.00007	0.000068
Copper, dissolved (D-Cu)	mg/L	-	-	<0.00050	<0.00050	<0.00050	<0.00050	0.00051	<0.00050
Iron, dissolved (D-Fe)	mg/L	-	-	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Lead, dissolved (D-Pb)	mg/L	-	-	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Manganese, dissolved (D-Mn)	mg/L	-	-	0.00608	0.00357	0.00097	0.0112	0.00373	0.00116
Nickel, dissolved (D-Ni)	mg/L	-	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Strontium, dissolved (D-Sr)	mg/L	-	-	4.12	5.32	6.08	2.66	5.35	6.04
Vanadium, dissolved (D-V)	mg/L	-	-	0.00113	0.00123	0.00143	0.0009	0.00129	0.00142
Zinc, dissolved (D-Zn)	mg/L	-	-	0.0019	0.0036	0.0015	0.0016	0.0027	0.0011
Polycyclic Aromatic Hydrocarbons (PAHs)									
Acenaphthene	mg/L	0.006	-	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Acridine	mg/L	-	-	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Anthracene	mg/L	-	-	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Benz(a)anthracene	mg/L	-	-	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Benzo(a)pyrene	mg/L	0.00001	-	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Chrysene	mg/L	0.0001	-	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Fluoranthene	mg/L	-	-	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Fluorene	mg/L	0.012	-	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
1-methylnaphthalene	mg/L	0.001	-	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
2-methylnaphthalene	mg/L	0.001	-	0.000012	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Naphthalene	mg/L	0.001	-	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Phenanthrene	mg/L	-	-	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Pyrene	mg/L	-	-	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Quinoline	mg/L	-	-	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Volatile Organic Compounds (VOCs)									
Benzene	mg/L	0.11	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Ethylbenzene	mg/L	0.25	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Methyl-tert-butyl-ether	mg/L	5	0.44	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Styrene	mg/L	-	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Toluene	mg/L	0.215	-	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040
Total Xylenes	mg/L	-	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Chlorobenzene	mg/L	0.025	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
1,2-Dichlorobenzene	mg/L	0.042	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050

Notes:
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.
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] Narrative guideline for the evaluation of change from background conditions arising from discharges to the aquatic environment. Salinity WQG was not evaluated. The water quality data presented in the table were collected when the site was discharging, therefore the turbidity and TSS WQGs were evaluated. Background values used to evaluate the February 20 IDZ-E1 and IDZ-E2 samples are the maximum measured in the February 20 WQR1 reference station samples at the 0.5 m depth (1.25 NTU and <2.0 mg/L TSS) (Report #52).
[3] The approved total ammonia nitrogen BC WQG is salinity, pH and temperature dependent; see Tables 26E and 26F 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, BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.

Table D-2: Summary of Marine Water Quality Results Received at the Time of Reporting

Parameter	Unit	Lowest Applicable Guideline [1]		Reference Station WQR-1		
				0.5 m Below Surface	2 m Below Surface	2 m Above Seafloor
				WQR1-0.5	WQR1-2m	WQR1-SF
				VA25A3677-007	VA25A3677-008	VA25A3677-009
		Long Term	Short Term	2025-02-20 13:53	2025-02-20 13:53	2025-02-20 13:56
General Parameters						
pH - Field	pH units	7.0 - 8.7	-	7.92	7.93	7.66
Specific Conductivity - Field	µS/cm	-	-	21788	27798	30758
Temperature - Field	℃	-	-	6.6	7.1	7.8
Salinity - Field	ppt	Narrative [2]	-	20.83	26.84	29.36
Turbidity - Field	NTU	Narrative [2]	Narrative [2]	1.25	1.23	0.79
TSS	mg/L	Narrative [2]	Narrative [2]	<2.0	<2.0	<2.0
Dissolved Oxygen - Field	mg/L	>=8	-	10.95	10.91	8.52
Anions and Nutrients						
Sulphate	mg/L	-	-	1460	2030	2240
Chloride	mg/L	-	-	10600	14700	16100
Fluoride	mg/L	-	1.5	<1.0	<1.0	<1.0
Ammonia ($N\text{-}NH_3$)	mg/L	4.7-8.1 [3]	31-54 [3]	0.0081	<0.0050	<0.0050
Nitrite ($N\text{-}NO_2$)	mg/L	-	-	<0.10	<0.10	<0.10
Nitrate ($N\text{-}NO_3$)	mg/L	3.7	339	<0.50	<0.50	0.53
Total Metals						
Aluminum, total (T-Al)	mg/L	-	-	0.0164	0.0089	0.0079
Antimony, total (T-Sb)	mg/L	-	0.27 [4]	<0.0010	<0.0010	<0.0010
Arsenic, total (T-As)	mg/L	0.0125	0.0125	0.00111	0.00151	0.00159
Barium, total (T-Ba)	mg/L	-	-	0.0108	0.0098	0.0097
Beryllium, total (T-Be)	mg/L	0.1	-	<0.00050	<0.00050	<0.00050
Boron, total (T-B)	mg/L	1.2	-	***2.88***	***3.71***	***4.12***
Cadmium, total (T-Cd)	mg/L	0.00012	-	0.000056	0.000072	0.000069
Chromium, total (T-Cr)	mg/L	-	-	<0.00050	<0.00050	<0.00050
Cobalt, total (T-Co)	mg/L	-	-	0.000084	0.000074	0.00007
Copper, total (T-Cu)	mg/L	0.002	0.003	0.00065	0.00056	0.00066
Iron, total (T-Fe)	mg/L	-	-	0.086	0.027	0.018
Lead, total (T-Pb)	mg/L	0.002	0.14	<0.00010	<0.00010	<0.00010
Manganese, total (T-Mn)	mg/L	-	-	0.00863	0.00354	0.00235
Mercury, total (T-Hg)	mg/L	0.000016 [5]	-	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total (T-Mo)	mg/L	-	-	0.00603	0.00793	0.00818
Nickel, total (T-Ni)	mg/L	0.0083	-	<0.00050	<0.00050	<0.00050
Selenium, total (T-Se)	mg/L	0.002	-	<0.00050	<0.00050	<0.00050
Silver, total (T-Ag)	mg/L	0.0015	0.003	<0.00010	<0.00010	<0.00010
Thallium, total (T-Tl)	mg/L	-	-	<0.000050	<0.000050	<0.000050
Uranium, total (T-U)	mg/L	-	-	0.00159	0.00211	0.00222
Vanadium, total (T-V)	mg/L	0.005	-	0.00119	0.00143	0.00142
Zinc, total (T-Zn)	mg/L	0.01	0.055	<0.0030	0.0049	<0.0030
Hexavalent Chromium, total	mg/L	0.0015	-	<0.00150	<0.00150	<0.00150
Dissolved Metals						
Cadmium, dissolved (D-Cd)	mg/L	-	-	0.000057	0.000063	0.000077
Copper, dissolved (D-Cu)	mg/L	-	-	<0.00050	<0.00050	<0.00050
Iron, dissolved (D-Fe)	mg/L	-	-	<0.010	<0.010	<0.010
Lead, dissolved (D-Pb)	mg/L	-	-	<0.00010	<0.00010	<0.00010
Manganese, dissolved (D-Mn)	mg/L	-	-	0.0075	0.00431	0.0009
Nickel, dissolved (D-Ni)	mg/L	-	-	<0.00050	<0.00050	<0.00050
Strontium, dissolved (D-Sr)	mg/L	-	-	3.94	5.17	6.04
Vanadium, dissolved (D-V)	mg/L	-	-	0.00106	0.00124	0.00141
Zinc, dissolved (D-Zn)	mg/L	-	-	0.0010	0.0010	0.0012
Polycyclic Aromatic Hydrocarbons (PAHs)						
Acenaphthene	mg/L	0.006	-	<0.000010	<0.000010	<0.000010
Acridine	mg/L	-	-	<0.000010	<0.000010	<0.000010
Anthracene	mg/L	-	-	<0.000010	<0.000010	<0.000010
Benz(a)anthracene	mg/L	-	-	<0.000010	<0.000010	<0.000010
Benzo(a)pyrene	mg/L	0.00001	-	<0.0000050	<0.0000050	<0.0000050
Chrysene	mg/L	0.0001	-	<0.000010	<0.000010	<0.000010
Fluoranthene	mg/L	-	-	<0.000010	<0.000010	<0.000010
Fluorene	mg/L	0.012	-	<0.000010	<0.000010	<0.000010
1-methylnaphthalene	mg/L	0.001	-	<0.000010	<0.000010	<0.000010
2-methylnaphthalene	mg/L	0.001	-	<0.000010	<0.000010	<0.000010
Naphthalene	mg/L	0.001	-	<0.000050	<0.000050	<0.000050
Phenanthrene	mg/L	-	-	<0.000020	<0.000020	<0.000020
Pyrene	mg/L	-	-	<0.000010	<0.000010	<0.000010
Quinoline	mg/L	-	-	<0.000050	<0.000050	<0.000050
Volatile Organic Compounds (VOCs)						
Benzene	mg/L	0.11	-	<0.00050	<0.00050	<0.00050
Ethylbenzene	mg/L	0.25	-	<0.00050	<0.00050	<0.00050
Methyl-tert-butyl-ether	mg/L	5	0.44	<0.00050	<0.00050	<0.00050
Styrene	mg/L	-	-	<0.00050	<0.00050	<0.00050
Toluene	mg/L	0.215	-	<0.00040	<0.00040	<0.00040
Total Xylenes	mg/L	-	-	<0.00050	<0.00050	<0.00050
Chlorobenzene	mg/L	0.025	-	<0.00050	<0.00050	<0.00050
1,2-Dichlorobenzene	mg/L	0.042	-	<0.00050	<0.00050	<0.00050

Notes:
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.
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] Narrative guideline for the evaluation of change from background conditions arising from discharges to the aquatic environment. Salinity WQG was not evaluated. The water quality data presented in the table were collected from reference station WQR and represent background conditions; therefore, the turbidity and TSS WQGs were not evaluated.
[3] The approved total ammonia nitrogen BC WQG is salinity, pH and temperature dependent; see Tables 26E and 26F 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, BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.

Table D-3: Summary of Marine Water Quality Results Received at the Time of Reporting

Parameter	Unit	Lowest Applicable Guideline [1]		Station IDZ-E1			Station IDZ-E2		
				0.5 m Below Surface	2 m Below Surface	2 m Above Seafloor	0.5 m Below Surface	2 m Below Surface	2 m Above Seafloor
				IDZ-E1-0.5	IDZ-E1-2m	IDZ-E1-SF	IDZ-E2-0.5	IDZ-E2-2m	IDZ-E2-SF
				VA25A3320-001	VA25A3320-002	VA25A3320-003	VA25A3320-004	VA25A3320-005	VA25A3320-006
		Long Term	Short Term	2025-02-15 9:45	2025-02-15 9:50	2025-02-15 9:55	2025-02-15 10:00	2025-02-15 10:05	2025-02-15 10:10
General Parameters									
pH - Field	pH units	7.0 - 8.7	-	7.79 [3]	7.58	7.52	7.72	7.70	7.60
Specific Conductivity - Field	µS/cm	-	-	-[3]	26249	30873	25924	26139	31112
Temperature - Field	°C	-	-	-[3]	6.3	7.8	6.2	6.3	8.0
Salinity - Field	ppt	Narrative [2]	-	-[3]	25.75	29.45	25.49	25.67	29.56
Turbidity - Field	NTU	Narrative [2]	Narrative [2]	0.49 [3]	0.84	0.68	0.83	0.91	0.69
TSS	mg/L	Narrative [2]	Narrative [2]	<3.0	<3.0	<3.0	<3.0	<3.0	3.4
Dissolved Oxygen - Field	mg/L	≥8	-	-[3]	9.40	8.23	10.26	9.89	8.00

Notes:
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.
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] Narrative guideline for the evaluation of change from background conditions arising from discharges to the aquatic environment. Salinity WQG was not evaluated. The water quality data presented in the table were collected when the site was not discharging, therefore the turbidity and TSS WQGs were not evaluated.
[3] Field parameters collected on February 15 for station IDZ-E1 at 0.5 m below the water surface were not available due to a field transcription error; therefore, laboratory parameters are reported where available.

Table D-4: Summary of Marine Water Quality Results Received at the Time of Reporting

Parameter	Unit	Lowest Applicable Guideline [1]		Station IDZ-W1			Station IDZ-W2		
				0.5 m Below Surface	2 m Below Surface	2 m Above Seafloor	0.5 m Below Surface	2 m Below Surface	2 m Above Seafloor
				IDZ-W1-0.5	IDZ-W1-2m	IDZ-W1-SF	IDZ-W2-0.5	IDZ-W2-2m	IDZ-W2-SF
				VA25A3320-007	VA25A3320-008	VA25A3320-009	VA25A3320-010	VA25A3320-011	VA25A3320-012
		Long Term	Short Term	2025-02-15 10:15	2025-02-15 10:25	2025-02-15 10:20	2025-02-15 10:30	2025-02-15 10:35	2025-02-15 10:40
General Parameters									
pH - Field	pH units	7.0 - 8.7	-	7.67	7.66	7.57	7.71	7.70	7.83
Specific Conductivity - Field	µS/cm	-	-	26267	26656	31286	26254	26552	31299
Temperature - Field	°C	-	-	6.3	6.4	8.1	6.3	6.3	8.1
Salinity - Field	ppt	Narrative [2]	-	25.79	26.13	29.64	25.80	26.06	29.65
Turbidity - Field	NTU	Narrative [2]	Narrative [2]	0.84	0.83	0.67	0.84	0.79	0.76
TSS	mg/L	Narrative [2]	Narrative [2]	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Dissolved Oxygen - Field	mg/L	≥8	-	9.53	9.42	***7.73***	10.13	9.91	***7.83***

Notes:
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.
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] Narrative guideline for the evaluation of change from background conditions arising from discharges to the aquatic environment. Salinity WQG was not evaluated. The water quality data presented in the table were collected when the site was not discharging, therefore the turbidity and TSS WQGs were not evaluated.