

TECHNICAL MEMORANDUM

To: Ian McAllister, Ashleigh Crompton, Mike Champion,
Mark Zan and Ryan Schucroft (Woodfibre LNG) **Date:** 31 Oct 2025

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

Subject: PE-111578 Weekly Discharge and Compliance Report #87 for October 19 – 25

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

This technical memorandum (Report #87) was prepared by Lorax and summarizes WDA monitoring conducted for the period of October 19 – 25. 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 #87 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 E for contact water, treated water and receiving environment samples.

1. Current Conditions

1.1 Water Management Infrastructure

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

Non-contact water from the slopes above and outside the Woodfibre LNG construction area is intercepted by diversion ditches and conveyed to Howe Sound or Mill Creek. Diversion ditches for the west catchment convey water to Mill Creek at station OUT-06, or to Howe Sound at station OUT-02 (Appendix A, Figure 1). During heavy precipitation, non-contact water is also conveyed to Howe Sound via station OUT-01. East of Mill Creek, non-contact water is intercepted and diverted around the east catchment along pre-existing road ditches that flow to East Creek or Mill Creek. To facilitate the replacement of the East Creek discharge culvert at OUT-12 (station SW-04), the lower reach of East Creek was temporarily diverted to an adjacent culvert, OUT-11, on September 17, 2024. To facilitate the reconstruction of the culvert at station OUT-01, non-contact water at the inlet to the culvert at OUT-01 has been temporarily diverted by pumping to station OUT-02 starting on October 12, 2025.

The East WWTP was commissioned April 2024 and the West WWTP was commissioned August 2024. Operation of the West WWTP was subsequently suspended September 25, 2024, for a temporary reconfiguration to conduct pilot-scale evaluations of alternative treatment processes. The evaluations were completed April 2025 and did not yield improved treatment outcomes; therefore, the original treatment process has been maintained. Lower than expected volumes of contaminated contact water have been encountered during construction; therefore, operation of the West WWTP remains suspended and all site waters that require treatment are directed to the East WWTP, with treated effluent discharged to the East Sedimentation Pond.

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

baker tanks for intermediate storage, and are then directed to the East WWTP for treatment, or the East and West Sedimentation Ponds prior to re-use or discharge.

Discharge from the East and West Sedimentation Ponds is controlled using pumps. Prior to water management upgrades that commenced during the week of June 22 - 28, 2025, water stored in the ponds was pumped to a TSS settling system for clarification and then discharged through the authorized outfall structures associated with each pond. Some of the TSS-clarified water was recirculated back to the ponds or was re-used for construction (*e.g.*, dust suppression), and this will continue with the revised configuration. Each sedimentation pond has an associated authorized discharge location (stations SP-E-OUT and SP-W-OUT) with an initial dilution zone (IDZ) where discharged water mixes with Howe Sound surface waters. The IDZ is defined in PE-111578 and extends in a 150 m radius from each point of discharge into Howe Sound.

A flocculant-based TSS settling system (2700GPM) at the West Sedimentation Pond is used to clarify all non-contaminated contact water prior to re-use at site or discharge at SP-W-OUT. Water collected in the East Sediment Pond is periodically transferred to the West Sedimentation Pond to allow treatment by the 2700GPM system. The fully built 2700GPM TSS settling system will have the installed capacity to clarify 14,700 m³/day of contact water and will consist of six parallel treatment trains, each with an installed capacity of 2450 m³/day. Only one train will be operated during dry conditions or when contact water flows are below approximately 2450 m³/day, whereas at higher flows, additional trains will be activated as needed to match the influent volumes. Treatment trains 1, 2, 3 and 4 have been commissioned, and preparations are underway to commission the remaining two treatment trains.

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

1.2 Weather and Water Management

Variable weather conditions were observed during the October 19 – 25 monitoring period, with precipitation recorded each day. The total precipitation amount during the monitoring period was 124.8 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
2025-10-19	25.0	12.4	6.7	Rain
2025-10-20	8.6	10.6	7.2	Rain
2025-10-21	1.2	14.1	7.8	Overcast
2025-10-22	9.6	10.7	6.7	Rain
2025-10-23	10.6	13.6	8.8	Rain
2025-10-24	45.0	13.9	8.2	Rain
2025-10-25	24.8	9.4	6.6	Rain

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

From October 19 – 25, the East Sedimentation Pond received water from Area 1100 (Trench 7, 6403 Sump and 6435 Sump), the Flare Anchor ‘A’ excavation area, the MOF Sump, stormwater from the Oily Water Tank area and recirculated effluent from the East WWTP (Appendix A, Figure 2). There was no discharge to Howe Sound from station SP-E-OUT during the monitoring period. A total of 2,194 m³ from the East Sedimentation Pond was transferred to the West Sedimentation Pond from October 19 – 25 (Appendix B, Table B-6).

Routine operation of the East WWTP continued during the monitoring period (October 19 – 25). Concrete contact water and water from the contaminated site water tank on the east side of the East Sedimentation Pond was periodically directed to the East WWTP for treatment, as well as water stored in the East Sedimentation Pond (Appendix A, Figure 2 and Figure 3). East WWTP treated effluent was discharged to the East Sedimentation Pond each day during the monitoring period (October 19 – 25). Daily water volumes processed by the East WWTP are provided in Appendix B (Table B-6).

From October 19 – 25, the West Sedimentation Pond received water from the Area 4100 and Area 4200 Sumps, the 8-plex Sumps, stormwater from the Outfall-01 excavation area, the East Sedimentation Pond as well as recirculated effluent from the 2700GPM TSS settling system (Appendix A, Figure 3). West Sedimentation Pond effluent was clarified through the 2700 GPM system each day during the monitoring period (October 19 – 25) and recirculated back to the pond or intermittently discharged to Howe Sound. A total of 9,613 m³ of clarified effluent was intermittently discharged to Howe Sound from station SP-W-OUT on October 19 (11:27 AM to 11:59 PM), October 20 (12:00 AM to 9:10 AM and 1:26 PM to 11:59 PM), October 21 (12:00 AM to 2:20 AM), October 23 (11:30 PM to 11:59 PM), October 24 (12:00 AM to 3:41 PM and 7:40 PM to 11:59 PM) and October 25 (12:00 AM to 3:36 PM and 4:15 PM to 11:59 PM). Clarified effluent was not reclaimed for construction use from October 19 – 25. Daily clarified effluent volumes from the TSS settling system that were recirculated to the West Sedimentation Pond or discharged to Howe Sound, and volumes of water reclaimed for construction use are provided in Appendix C (Table C-5).

2. Monitoring Summary

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

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

- Non-contact diversion ditch outlet monitoring stations (OUT-01, OUT-02 and OUT-06). East Creek water has been temporarily diverted to OUT-11 since September 17, 2024, to facilitate the replacement of the OUT-12 culvert through which East Creek previously discharged. East Creek is monitored at the inlet to the temporary diversion (freshwater receiving environment station SW-04); therefore, OUT-11 is not currently monitored while the diversion is in place. Non-contact diversion ditch water at OUT-01 has been temporarily redirected to OUT-02 since October 12, 2025, to facilitate the reconstruction of the outfall at OUT-01; therefore, OUT-01 is not currently monitored while the diversion is in place.
- Creek water monitoring stations for Woodfibre, Mill and East Creek (SW-01, SW-02, SW-03, SW-04, SW-07).
- Contact water monitoring locations (SP-E-IN, WWTP-E-IN, COMB-WWTP-E-IN, WWTP-E-OUT, SP-W-IN, 2700GPM-IN, and 2700GPM-OUT).
- Supplementary contact water stations at the outlet of each sampling train. These samples are identified as W2700T#-OUT (with # equal to the train number).
- Effluent compliance stations (SP-E-OUT and SP-W-OUT). As described in Section 1.1, when there is surplus water, West Sedimentation Pond clarified effluent from the individual 2700GPM trains is directed to SP-W-OUT for discharge. As of September 26, 2025, a manifold is being implemented that combines effluent from the individual trains into a single discharge line configured with a new SP-W-OUT sampling port. Prior to September 26, 2025, the SP-W-OUT monitoring station was not safe to access and the SP-W-OUT station was monitored at the outlet of the individual 2700GPM TSS settling trains.
- Howe Sound reference and IDZ monitoring stations (WQR1, WQR2, IDZ-E1, IDZ-E2, IDZ-W1, and IDZ-W2).

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

A flocculant-based TSS settling system (2700GPM) is used at the West Sedimentation Pond as described in Section 1.1. Influent and effluent are monitored at stations 2700GPM-IN and 2700GPM-OUT, respectively. The 2700GPM-OUT station represents the combined discharge line

from all six individual treatment trains when clarified effluent is directed to the West Sedimentation Pond and is approximately 10 m from the location of the SP-W-OUT station. At times when only one 2700GPM treatment train is operated, the 2700GPM-OUT sample has been collected at the outlet of that train. Monitoring of the individual 2700GPM settling system treatment trains is supplemental to the PE-111578 monitoring requirements and is conducted at the discretion of field staff. As previously discussed, since September 26, 2025, a manifold is being implemented that combines effluent from the individual trains into a single discharge line configured with a new SP-W-OUT sampling port.

Water quality was monitored at stations SW-01, SW-02, SW-03, SW-04, SW-07, IDZ-E1, IDZ-E2, IDZ-W1, IDZ-W2, WQR1, WQR2, SP-E-IN, WWTP-E-IN, COMB-WWTP-E-IN, WWTP-E-OUT, SP-W-IN, SP-W-OUT, 2700GPM-IN, and 2700GPM-OUT during the monitoring period (October 19 – 25). Sampling dates and parameters tested are summarized in Table 2.

Overall, the PE-111578 monitoring requirements that were applicable during the monitoring period (October 19 – 25) were met. The initial high frequency monitoring requirements outlined in effluent permit PE-111578 for the sedimentation ponds, WWTP and IDZ stations have been met. On June 25, 2025, BCER approved the implementation of low-frequency (*i.e.*, bi-monthly and monthly) monitoring requirements specified in PE-111578 for all parameters, except for metals, hexavalent chromium, and methylmercury, which continue to be monitored weekly at sedimentation pond and WWTP stations.

Daily field parameters and a weekly analytical sample were not collected at the east catchment effluent compliance station (SP-E-OUT) as there was no discharge to Howe Sound from the East Sedimentation Pond during the monitoring period (October 19 – 25). Daily field parameters were not collected at the west catchment effluent compliance station (SP-W-OUT) on October 21, 22, and 23 as there was no discharge to Howe Sound at SP-W-OUT at the time of monitoring.

Daily field parameters and a weekly analytical sample were not collected at the influent and effluent stations of the West WWTP (WWTP-W-IN and WWTP-W-OUT, respectively) as it was not operational during the monitoring period (October 19 – 25).

Table 2:
Summary of PE-111578 Monitoring Samples Collected October 19 – 25.

Sampling Date	Sample	Description	Parameters Tested	Monitoring Frequency
October 19, 2025	SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	WWTP-E-IN	East WWTP at the influent meter box	Field Parameters.	D
	WWTP-E-OUT	East WWTP at the effluent meter box		
	SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	SP-W-OUT	West Sedimentation Pond clarified effluent discharge to Howe Sound, collected at the manifold that combines effluent from the individual 2700GPM trains into a single discharge line configured with a new SP-W-OUT sampling port	Field Parameters.	D
	2700GPM-IN	2700GPM TSS settling system at the influent meter box	Field Parameters.	P
	2700GPM-OUT	2700GPM TSS settling system at the manifold that combines effluent from the individual 2700GPM trains into a single line that is directed to the West Sedimentation Pond		
October 20, 2025	SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	WWTP-E-IN	East WWTP at the influent meter box	Field Parameters.	D
	WWTP-E-OUT	East WWTP at the effluent meter box		
	SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	Field, Physical & General Parameters, Total, Dissolved and Speciated Metals, and Methylmercury.	D, M ₂ , W
	SP-W-OUT	West Sedimentation Pond clarified effluent discharge to Howe Sound, collected at the manifold that combines effluent from the individual 2700GPM trains into a single discharge line configured with a new SP-W-OUT sampling port	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	D, M, M ₂ , W
	2700GPM-IN	2700GPM TSS settling system at the influent meter box	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	P
	2700GPM-OUT	2700GPM TSS settling system at the manifold that combines effluent from the individual 2700GPM trains into a single line that is directed to the West Sedimentation Pond	Field Parameters.	P
	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.	M, M ₅
	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		
	SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	WWTP-E-IN	East WWTP at the influent meter box	Field Parameters.	D
	WWTP-E-OUT	East WWTP at the effluent meter box		
	SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	2700GPM-IN	2700GPM TSS settling system at the influent meter box	Field Parameters.	P
	2700GPM-OUT	2700GPM TSS settling system at the manifold that combines effluent from the individual 2700GPM trains into a single line that is directed to the West Sedimentation Pond		
October 22, 2025	SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	Field, Physical & General Parameters, Total, Dissolved and Speciated Metals, and Methylmercury.	D, M ₂ , W
	WWTP-E-IN	East WWTP at the influent meter box	Field, Physical & General Parameters, Total, Dissolved and Speciated Metals, and Methylmercury.	D, M ₂ , W
	WWTP-E-OUT	East WWTP at the effluent meter box		
	COMB-WWTP-E-IN	Combined East WWTP influent from the concrete contact water treatment stream and the East Sedimentation Pond, collected from the heated frac tank	Field & Physical Parameters, Total, Dissolved and Speciated Metals, and Methylmercury.	P
	SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	2700GPM-IN	2700GPM TSS settling system at the influent meter box	Field Parameters.	P
	2700GPM-OUT	2700GPM TSS settling system at the manifold that combines effluent from the individual 2700GPM trains into a single line that is directed to the West Sedimentation Pond		
October 23, 2025	SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	WWTP-E-IN	East WWTP at the influent meter box	Field Parameters.	D
	WWTP-E-OUT	East WWTP at the effluent meter box		
	SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	2700GPM-IN	2700GPM TSS settling system at the influent meter box	Field Parameters.	P
	2700GPM-OUT	2700GPM TSS settling system at the manifold that combines effluent from the individual 2700GPM trains into a single line that is directed to the West Sedimentation Pond	Field Parameters.	P

Notes:
Monitoring frequency requirements under PE-111578 are indicated as follows:
D – daily monitoring of field parameters at WWTP and sedimentation pond influent and effluent stations.
M – monthly monitoring for all parameters at WWTP, sedimentation pond and receiving environment stations. Monthly monitoring for General parameters, except ammonia, nitrate and nitrite (*i.e.*, nitrogen species) are monitored weekly during blasting season.
M₂ – bi-monthly monitoring for physical parameters at WWTP and sedimentation pond stations.
M₅ – fall high-frequency (5-in-30) sampling for receiving environment stations.
W – weekly monitoring for metals, chromium speciation and methylmercury at WWTP and sedimentation pond influent and effluent stations, effective June 25, 2025.
P – periodic monitoring for targeted parameters that is supplementary to PE-111578 requirements.

Table 2 (continued):
Summary of PE-111578 Monitoring Samples Collected October 19 – 25.

Sampling Date	Sample	Description	Parameters Tested	Monitoring Frequency
October 24, 2025	SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	WWTP-E-IN	East WWTP at the influent meter box	Field Parameters.	D
	WWTP-E-OUT	East WWTP at the effluent meter box		
	SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	SP-W-OUT	West Sedimentation Pond clarified effluent discharge to Howe Sound, collected at the manifold that combines effluent from the individual 2700GPM trains into a single discharge line configured with a new SP-W-OUT sampling port	Field Parameters.	D
	2700GPM-IN	2700GPM TSS settling system at the influent meter box	Field Parameters.	P
	IDZ-W1-0.5	Howe Sound IDZ station W1; 0.5 m below surface	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	M, M ₅
	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		
October 25, 2025	SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	WWTP-E-IN	East WWTP at the influent meter box	Field Parameters.	D
	WWTP-E-OUT	East WWTP at the effluent meter box		
	SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	SP-W-OUT	West Sedimentation Pond clarified effluent discharge to Howe Sound, collected at the manifold that combines effluent from the individual 2700GPM trains into a single discharge line configured with a new SP-W-OUT sampling port	Field Parameters.	D
	2700GPM-IN	2700GPM TSS settling system at the influent meter box	Field Parameters.	P
	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, M ₅
	SW-02	Lower Reach of Mill Creek (upstream of the third bridge)		
	SW-03	Mill Creek Estuary		
	SW-04	Lower Reach of East Creek (near the outlet to the outfall culvert)		
	SW-07	Upstream Mill Creek (at the diversion inlet)		

Notes:

Monitoring frequency requirements under PE-111578 are indicated as follows:
D – daily monitoring of field parameters at WWTP and sedimentation pond influent and effluent stations.
M – monthly monitoring for all parameters at WWTP, sedimentation pond and receiving environment stations. Monthly monitoring for General parameters, except ammonia, nitrate and nitrite (*i.e.*, nitrogen species) are monitored weekly during blasting season.
M₂ – bi-monthly monitoring for physical parameters at WWTP and sedimentation pond stations.
M₅ – fall high-frequency (5-in-30) sampling for receiving environment stations.
W – weekly monitoring for metals, chromium speciation and methylmercury at WWTP and sedimentation pond influent and effluent stations, effective June 25, 2025.
P – periodic monitoring for targeted parameters that is supplementary to PE-111578 requirements.

3. Water Quality Results

3.1 Summary of Reported Results

Analytical results and associated field measurements included in this weekly report (Report #87) are listed below in Table 3, with additional field measurements presented in Table B-5 (Appendix B) and Table C-4 (Appendix C). Testing for methylmercury, dioxins, furans and toxicity may require four weeks or longer to complete. Analytical results not reported will be included in future weekly reports. Reporting of results is pending for the following samples and parameters:

- SP-W-OUT collected September 29 (acute toxicity);
- IDZ-E1, IDZ-E2, IDZ-W1, IDZ-W2, WQR1 and WQR2 collected September 30 at 0.5 m below surface (chronic toxicity);
- OUT-06 collected October 3 (total mercury and methylmercury);
- SW-01, SW-02, SW-03, SW-04, and SW-07 collected October 5 (total mercury and methylmercury);
- IDZ-E1, IDZ-E2 and WQR1 collected October 9 (chronic toxicity);
- SP-W-IN, SP-W-OUT and 2700GPM-IN collected October 10 (dioxins and furans);
- IDZ-W1, IDZ-W2 and WQR2 collected October 10 at 0.5 m below surface (chronic toxicity);
- COMB-WWTP-E-IN collected October 11 (methylmercury);
- SW-01, SW-02, SW-03, SW-04, and SW-07 collected October 12 (field and all analytical parameters);
- IDZ-E1, IDZ-E2 and WQR1 collected October 14 (field and all analytical parameters);
- OUT-02 collected October 14 (methylmercury);
- 2700GPM-IN and SP-W-OUT collected October 15 (dioxins and furans);
- IDZ-W1, IDZ-W2 and WQR2 collected October 15 (field and all analytical parameters);
- SW-01, SW-02, SW-03, SW-04, and SW-07 collected October 17 (field and all analytical parameters);
- COMB-WWTP-E-IN collected October 17 (methylmercury);
- 2700GPM-IN and SP-W-OUT collected October 20 (dioxins and furans);
- IDZ-E1, IDZ-E2 and WQR1 collected October 20 (field and all analytical parameters);
- COMB-WWTP-E-IN collected October 22 (field and all analytical parameters);

- IDZ-W1, IDZ-W2 and WQR2 collected October 24 (field and all analytical parameters);
- SW-01, SW-02, SW-03, SW-04 and SW-07 collected October 25 (field and all analytical parameters).

Table 3:
Summary of Analytical Results and Associated Field Measurements Included in Weekly Discharge and Compliance Report #87.

Sample	Description	Sampling Date	Parameters Reported
OUT-01	Non-contact water diversion ditch outlet	September 29, 2025	Methylmercury.
OUT-02	Non-contact water diversion ditch outlet		
IDZ-E1-0.5	Howe Sound IDZ station E1; 0.5 m below surface	October 9, 2025	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, VOCs, PAHs, Methylmercury, Dioxins and Furans.
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		
IDZ-W1-0.5	Howe Sound IDZ station W1; 0.5 m below surface	October 10, 2025	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, Methylmercury, Dioxins and Furans.
IDZ-W2-0.5	Howe Sound IDZ station W2; 0.5 m below surface		
WQR2-0.5	Reference site 2; 0.5 m below surface		
SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	October 11, 2025	Dioxins and Furans.
WWTP-E-IN	East WWTP at the influent meter box		
WWTP-E-OUT	East WWTP at the effluent meter box		Field and Physical Parameters, Total and Dissolved Metals, Hexavalent Chromium.
COMB-WWTP-E-IN	Combined East WWTP influent from the concrete contact water treatment stream and the East Sedimentation Pond, collected from the heated frac tank		
OUT-02	Non-contact water diversion ditch outlet	October 14, 2025	Field, Physical and General Parameters, Total and Dissolved Metals.
COMB-WWTP-E-IN	Combined East WWTP influent from the concrete contact water treatment stream and the East Sedimentation Pond, collected from the heated frac tank	October 17, 2025	Field and Physical Parameters, Total and Dissolved Metals, Hexavalent Chromium.
SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	October 20, 2025	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, and Methylmercury.
SP-W-OUT	West Sedimentation Pond clarified effluent discharge to Howe Sound, collected at the manifold that combines effluent from the individual 2700GPM trains into a single discharge line configured with a new SP-W-OUT sampling port		Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, VOCs, PAHs, and Methylmercury.
2700GPM-IN	2700GPM TSS settling system at the influent meter box		
SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	October 22, 2025	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, and Methylmercury.
WWTP-E-IN	East WWTP at the influent meter box		
WWTP-E-OUT	East WWTP at the effluent meter box		

3.2 Screening and Reporting Overview

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

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

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

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

These two parameters span the range of possible TEQs if one or more of the PCDDs and PCDFs are reported as not detected.

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

A summary of reported and pending results is provided in Section 3.2. Results for effluents from East WWTP, 2700GPM TSS settling system, and East and West Sedimentation Ponds are discussed in Section 3.3 and Section 3.4. The water quality monitored at non-contact water diversion ditch outlets and in the receiving environment is described in Section 3.5, Section 3.6 and Section 3.7. Sediment samples are collected annually at stations IDZ-E-SED and IDZ-W-SED, and the sediment results are discussed in Section 3.7 when they are reported.

3.3 East Catchment

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

Field measurements of influent quality for the East Sedimentation Pond and East WWTP influent and effluent quality collected October 19 – 25 and analytical samples collected October 11 and 17 (station COMB-WWTP-E-IN as discussed in Report #85 and #86, respectively) and October 22 (stations SP-E-IN, WWTP-E-IN and WWTP-E-OUT) were available at the time of reporting.

Field measurements collected October 19 – 25 and analytical results collected October 22 for East WWTP effluent (WWTP-E-OUT) met MDOs except for field pH (pH 5.5) on October 25 and dissolved oxygen (5.05 mg/L) on October 23 (Appendix B, Table B-1, Table B-3, and Table B-5). East WWTP effluent was directed to the East Sedimentation Pond and there was no discharge from the pond to Howe Sound during the monitoring period (October 19 – 25).

As discussed previously in Section 1.2, there were no discharges to Howe Sound from the SP-E-OUT authorized discharge location (Appendix B, Table B-6) during the monitoring period (October 19 – 25), therefore, water quality samples and field measurements were not collected at this station.

Dioxin and furan results were reported for East Sedimentation Pond influent and East WWTP influent and effluent samples (stations WWTP-E-IN and WWTP-E-OUT, respectively) collected October 11 (as discussed in Report #85). The lower and upper bound PCDD/F TEQ concentrations in East WWTP effluent (WWTP-E-OUT) collected October 11 were 0.0493 and 1.63 pg/L, respectively. Results are tabulated in Appendix B, Table B-4.

3.4 West Catchment

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

As discussed in Section 1.2, a total of 9,613 m³ of clarified sedimentation pond effluent from the 2700GPM TSS Settling System was intermittently discharged to Howe Sound from SP-W-OUT each day during the monitoring period (October 19 – 25) except on October 22.

Field measurements of influent and effluent quality for the West Sedimentation Pond and the 2700GPM TSS settling system collected October 19 – 25 and analytical samples collected October 20 (stations SP-W-IN, SP-W-OUT and 2700GPM-IN) were available at the time of reporting. The PE-111578 discharge limits and WQGs were met at station SP-W-OUT (Appendix C, Table C-2, Table C-3 and Table C-4).

3.5 Non-Contact Water Diversion Ditch Outlets

Analytical results and field measurements were available at the time of reporting for the non-contact water diversion ditch outlet sample collected at station OUT-02 on October 14. The analytical results, field parameters, and WQGs are summarized in Appendix D.

Parameter concentrations met WQGs except total aluminum and dissolved copper. Total aluminum (0.111 mg/L) and dissolved copper (0.00050 mg/L) were above the long-term WQGs at OUT-02 on October 14. Total aluminum and dissolved copper results are within the range of values observed during the pre-construction baseline monitoring of diversion ditch water quality. The total aluminum and dissolved copper concentrations measured at OUT-02 are considered to represent background conditions for non-contact diversion ditch water quality and are not attributed to project influence.

Methylmercury results for the non-contact water diversion ditch outlet samples collected at stations OUT-01 and OUT-02 on September 29 were available at the time of reporting. Methylmercury concentrations were 0.000039 and 0.000073 µg/L in samples collected at OUT-01

and OUT-02, respectively, and were below the WQG. The corresponding total mercury results were also below the WQGs. Results are tabulated in Appendix D, Table D-2.

3.6 Freshwater and Estuarine Water Receiving Environment

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

3.7 Marine Water Receiving Environment

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 October 9 (stations IDZ-E1, IDZ-E2 and WQR1) and at 0.5 m below the water surface on October 10 (stations IDZ-W1, IDZ-W2 and WQR2) (as discussed in Report #85). The analytical results, field parameters, and WQGs are summarized in Appendix E.

Parameter concentrations met WQGs except dissolved oxygen and total boron in all samples (Appendix E; Tables E-1 through Table E-3). In all samples collected October 9 (stations IDZ-E1, IDZ-E2 and WQR1) and October 10 (stations IDZ-W1, IDZ-W2 and WQR2), dissolved oxygen ranged from 5.12 to 6.80 mg/L and was below the lower limit of the WQG (8 mg/L). Total boron was also above the WQG (1.2 mg/L) in all samples collected October 9 and 10 and ranged from 2.50 to 2.95 mg/L. 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 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.

Methylmercury analytical results were available at the time of reporting for marine water samples collected at 0.5 and 2 m below the water surface and 2 m above the seafloor on October 9 (stations IDZ-E1, IDZ-E2 and WQR1) and at 0.5 m below the water surface on October 10 (stations IDZ-W1, IDZ-W2 and WQR2) (as discussed in Report #85). For all samples, methylmercury concentrations ranged from <0.000020 to 0.000035 µg/L and were below the WQG. The corresponding total mercury results were also below the WQGs. Results are tabulated in Appendix E, Table E-4.

Dioxins and furans results were available at the time of reporting for marine water samples collected at 0.5 and 2 m below the water surface and 2 m above the seafloor on October 9 (stations IDZ-E1, IDZ-E2 and WQR1) and at 0.5 m below the water surface on October 10 (stations IDZ-W1, IDZ-W2 and WQR2) (as discussed in Report #85). For all samples, the lower bound PCDD/F TEQ concentrations ranged from 0 to 0.0181 pg/L and the upper bound PCDD/F TEQ

concentrations ranged from 1.07 to 2.90 pg/L. The lower and upper bound PCDD/F TEQ concentrations were within the concentration ranges observed in the baseline monitoring program or within background ranges observed at marine reference stations. Results are tabulated in Appendix E, Table E-5.

3.8 Quality Control

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

Table 4:
Weekly Report QC Evaluations and Ongoing Items

QC Procedure	Observation	Investigation/Resolution
Reporting Period (October 19 – 25, Report #87)		
Authorized Works and Monitoring Program Evaluation	The authorized works and monitoring stations have not been established as described in PE-111578.	The PE-111578 authorized works for water management have been constructed, except for some of the conveyance ditches, which require completion of site grading prior to installation. Sumps, pumps and hoses are used for temporary conveyance until the ditches are completed. The lower reach of East Creek has been temporarily diverted through the OUT- 11 outfall since September 17, 2024, to facilitate replacement of the East Creek outfall culvert (OUT-12). All monitoring stations have been established except at SP-E-IN-1, SP-E-IN-2, SP-W-IN-1 and SP-W-IN-2 where substitute stations are established in lieu of those listed in PE-111578 (refer to Section 2). This item remains open.
Report #87: Pending Data	Analytical results not reported.	Field parameters and analytical results for freshwater, estuarine water and marine water receiving environment samples collected October 20, 24 and 25 and field parameters and analytical results for the contact water sample collected October 22 as well as dioxins and furans results for contact water and treated water samples collected October 20 are pending and will be included in future weekly reports when available. This item remains open.
Ongoing Items from Previous Weekly Reports		
Report #62: WWTP Performance Evaluation	Total copper above the MDO.	The treatment effectiveness for total copper has been inconsistent from January to October. Several modifications to the treatment process have been implemented in 2025 to improve T-Cu removal. The HSMT metal removal media was replaced on June 5. A modification to how the treatment reagents are added was implemented late July. BCER has been notified that additional filtration will be implemented to remove fine particles at the outlet of the treatment plant. High-frequency monitoring at multiple treatment stages is on-going to the evaluate the effectiveness of these changes. The total copper concentration in the WWTP-E-OUT sample collected October 17 (0.00474 mg/L) was above the MDO. Samples previously collected on September 27 and October 4 and the sample collected on October 22 met the MDO. The WWTP treatment performance for total copper continues to be reviewed. This item remains open.
Report #84: Pending Data	Analytical results not reported.	Total mercury and methylmercury results for non-contact water diversion ditch outlet samples collected October 3, acute toxicity results for West Sedimentation Pond (SP-W-OUT) effluent collected September 29 and chronic toxicity results for marine receiving environment samples collected September 30 are pending and will be included in future weekly reports when available. This item remains open.
Report #85: Pending Data	Analytical results not reported.	Total mercury and methylmercury results for freshwater and estuarine water receiving environment samples collected October 5 and the contact water sample collected October 11, chronic toxicity results for marine water receiving environment samples collected October 9 and 10, and dioxins and furans results for contact water and treated water samples collected October 10 are pending and will be included in future weekly reports when available. This item remains open.
Report #86: WWTP Performance Evaluation	Hexavalent chromium above the MDO.	The total hexavalent chromium concentration was 0.00176 mg/L in the sample collected at WWTP-E-OUT on October 17 and was above the MDO (0.0015 mg/L). The WWTP treatment performance for total hexavalent chromium will be reviewed. This item remains open.
Report #86: Potential Project Influence	Dissolved copper above the WQG and baseline ranges.	Dissolved copper measured in the non-contact water diversion ditch outlet (OUT-01) on September 29 (0.00122 mg/L) was 6.1 times greater than the long-term WQG, 2.5 times greater than the short-term WQG and 1.3 times greater than the maximum concentration observed in the pre- construction baseline monitoring of diversion ditch water quality (0.00095 mg/L). Further monitoring is required to characterize water quality in the non-contact water diversion ditch station OUT-01 and evaluate if there is a potential for project influenced exceedances of WQGs. This item remains open.
Report #86: Pending Data	Analytical results not reported.	Field parameters and analytical results for freshwater, estuarine water and marine water receiving environment samples collected October 12, 14, 15 and 17, total mercury and methylmercury results for non-contact water diversion ditch outlet and contact water samples collected October 14 and 17, respectively, and dioxins and furans results for contact water and treated water samples collected October 15 are pending and will be included in future weekly reports when available. This item remains open.

Notes:
Result QA/QC screening includes the evaluation of field and lab QC results, comparison of total and dissolved metal results and review for modified detection limits.
Pending data are outstanding results from monitoring samples reported in the current or previous weekly reports.
Authorized works and monitoring program evaluation is an assessment of the completeness of the authorized works and monitoring program compared to PE-111578 specified or implied requirements.
WWTP performance evaluation is an assessment of WWTP effluent quality compared to operational MDOs.
Data QC indicates an evaluation of data trends or inter-parameter relationships that suggest a test result may not be representative of water quality at the time of monitoring.
Non-compliant discharge indicates exceedance of a discharge limit or a discharge that bypasses the sedimentation pond discharge location.
Potential project influence is an assessment that water quality at creek and Howe Sound baseline stations are above the baseline concentration range and may indicate project influence at these stations.

4. Closure

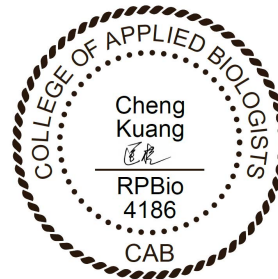
This weekly report is a desktop review by Lorax of the PE-111578 discharge and compliance monitoring program records, reports and results provided by Woodfibre LNG and prime contractor McDermott International and their sub-contractors. The records reviewed and analyzed by Lorax include ALS Environmental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

Regards,

LORAX ENVIRONMENTAL SERVICES LTD.



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



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Environmental Scientist

Appendix A: Figures and Site Images



World Imagery: District of Squamish. Additional imagery provided by McDermott International captured September 30st, 2025.

LEGEND

- Freshwater Monitoring Station
- Marine Water Monitoring Station
- Clean Water Discharge Station
- Sedimentation Pond Monitoring Stations (Water Quality)
- Wastewater Treatment Plant (WWTP)
- Certified Project Area
- Watercourse
- East Creek Temporary Diversion
- Non-Contact Ditch
- Culvert / Outfall / Pipeline
- Bathymetry Contour (Major: 50m)
- Bathymetry Contour (Minor: 10m)

DATE SAVED: Oct 31, 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
0 100 200 Metres

CLIENT:



PROJECT:

Woodfibre LNG Project Construction Phase

TITLE:

Site Layout and Water Quality Monitoring Stations for PE-111578 (October 25, 2025)

PROJECT #:

A633-9

FIGURE:

1

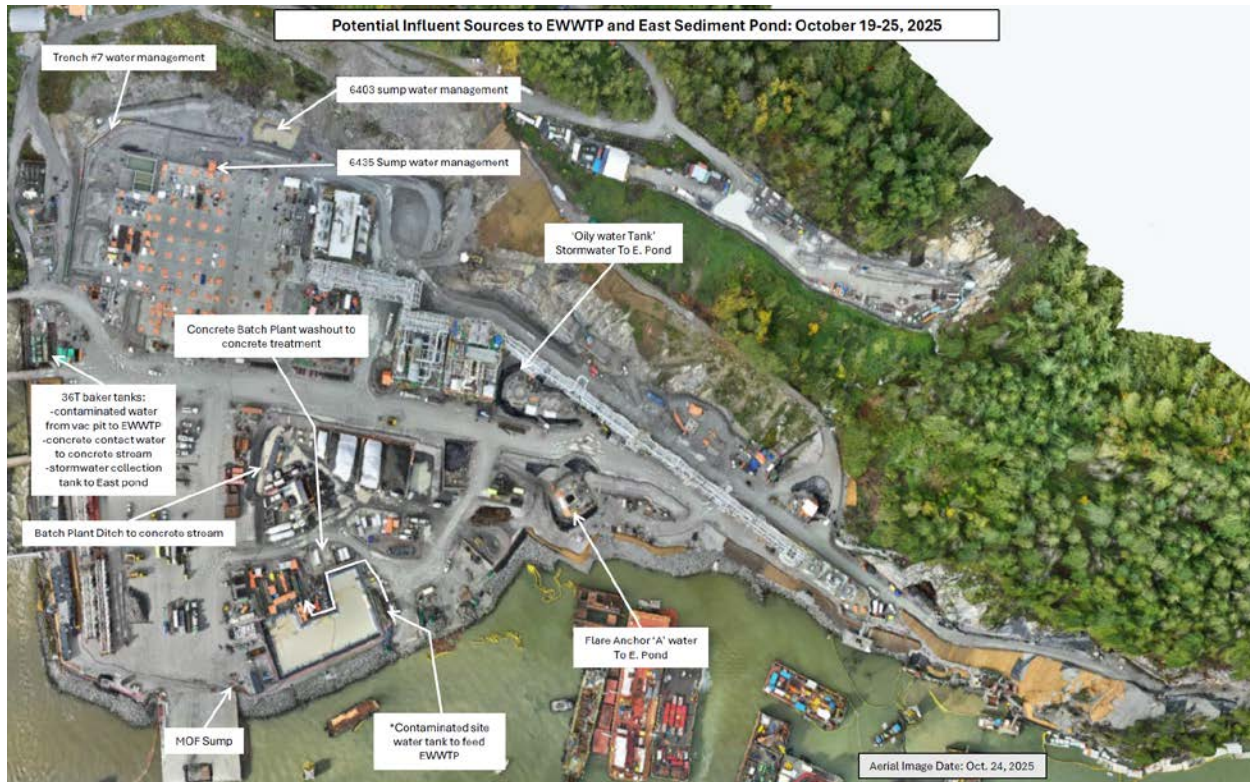


Figure 2: East Catchment contact water management facilities (October 19 – 25).



Figure 3: West Catchment contact water management facilities (October 19 – 25).



Figure 4: Aerial view of the East Sedimentation Pond (October 24, 2025). The East WWTP is located on the left side of the pond.



Figure 5: Aerial view of the West Sedimentation Pond (October 24, 2025).

Appendix B:
East Catchment Monitoring Results

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

Parameter	Unit	Lowest Applicable Guideline ¹		PE-111578 Discharge Limit	Station	Station	Station	Station
					COMB-WWTP-E-IN	COMB-WWTP-E-IN	WWTP-E-IN	WWTP-E-OUT
		Influent	Influent		Influent	Effluent		
		COMB-WWTP-E-IN VA25C7096-003	COMB-WWTP-E-IN VA25C7692-003		WWTP-E-IN VA25C8166-002	WWTP-E-OUT VA25C8166-003		
					2025-10-11 11:55	2025-10-17 9:34	2025-10-22 10:00	2025-10-22 16:08
General Parameters								
pH - Field	pH units	- ²	-	5.5 - 9.0	8.14	7.0	6.7	6.41
Specific Conductivity - Field	µS/cm	-	-	-	954	1181	1437	1808
Temperature - Field	°C	-	-	-	12.9	10.6	10.6	10.8
Salinity - Field	ppt	-	-	-	0.47	0.59	0.73	0.92
Turbidity - Field	NTU	-	-	-	49.03	7.13	20.62	3.28
TSS	mg/L	-	-	25 or 75 ⁶	11.2	<3.0	7.6	<3.0
Dissolved Oxygen - Field	mg/L	≥8	-	-	10.99	13.47	11.01	10.16
Total Hardness	mg/L	-	-	-	123	82.7	67.4	29.3
Dissolved Hardness	mg/L	-	-	-	112	89.7	60.6	27.4
Anions and Nutrients								
Sulphate	mg/L	-	-	-	-	-	538	688
Chloride	mg/L	-	-	-	-	-	15.6	15.7
Fluoride	mg/L	-	1.5	-	-	-	<0.100	<0.200
Ammonia (N-NH ₃)	mg/L	2-20 ³	13-131 ³	-	-	-	<0.0050	<0.0050
Nitrite (N-NO ₂)	mg/L	-	-	-	-	-	0.015	0.0137
Nitrate (N-NO ₃)	mg/L	3.7	339	-	-	-	0.688	0.71
Total Organic Carbon (TOC)	mg/L	-	-	-	-	-	1.35	0.95
Dissolved Organic Carbon (DOC)	mg/L	-	-	-	-	-	1.25	0.77
Total Metals								
Aluminum, total (T-Al)	mg/L	-	-	-	1.36	0.314	0.843	0.0444
Antimony, total (T-Sb)	mg/L	-	0.27 ⁴	-	0.00164	0.00171	0.00104	0.00103
Arsenic, total (T-As)	mg/L	0.0125	-	-	0.00132	0.00089	0.00052	0.00039
Barium, total (T-Ba)	mg/L	-	-	-	0.0333	0.0164	0.0235	0.00315
Beryllium, total (T-Be)	mg/L	0.1	-	-	0.000021	<0.000020	0.000022	<0.000040
Boron, total (T-B)	mg/L	1.2	-	-	0.083	0.055	0.033	0.031
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000400	<0.0000350	<0.0000500	<0.0000200
Chromium, total (T-Cr)	mg/L	-	-	-	0.00154	0.00294	0.00134	<0.00100
Cobalt, total (T-Co)	mg/L	-	-	-	0.0005	0.00014	0.00033	<0.00020
Copper, total (T-Cu)	mg/L	- ²	- ²	0.0043	0.00286	0.00176	0.00214	0.00193
Iron, total (T-Fe)	mg/L	-	-	-	0.985	0.193	0.589	0.023
Lead, total (T-Pb)	mg/L	- ²	- ²	0.0035	0.000674	0.000202	0.000343	0.000124
Manganese, total (T-Mn)	mg/L	-	-	-	0.0758	0.0195	0.0581	0.00202
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.0469	0.0759	0.0411	0.0378
Nickel, total (T-Ni)	mg/L	0.0083	-	-	0.00084	0.00052	0.0008	<0.00100
Selenium, total (T-Se)	mg/L	0.002	-	-	0.000179	0.000372	0.000226	0.000309
Silver, total (T-Ag)	mg/L	0.0005	0.0037	-	<0.000010	<0.000010	<0.000010	<0.000020
Thallium, total (T-Tl)	mg/L	-	-	-	0.000015	<0.000010	<0.000010	<0.000020
Uranium, total (T-U)	mg/L	-	-	-	0.0187	0.0145	0.00626	0.0022
Vanadium, total (T-V)	mg/L	- ²	-	0.0081	0.00317	0.00213	0.00169	0.00104
Zinc, total (T-Zn)	mg/L	- ²	- ²	0.0133	0.0124	0.0072	0.0135	<0.0060
Hexavalent Chromium, total	mg/L	0.0015	-	-	0.00088	0.00217	0.00116	0.00063
Dissolved Metals								
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000250	<0.0000350	0.0000416	<0.0000250
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00138	0.00141	0.0015	0.00267
Iron, dissolved (D-Fe)	mg/L	-	-	-	<0.010	0.027	0.025	<0.010
Lead, dissolved (D-Pb)	mg/L	-	-	-	<0.000050	<0.000050	0.000084	0.00015
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.0372	0.0164	0.0361	0.0014
Nickel, dissolved (D-Ni)	mg/L	-	-	-	0.00052	0.00063	0.00068	<0.00050
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.202	0.216	0.168	0.121
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00172	0.00157	0.00073	0.00092
Zinc, dissolved (D-Zn)	mg/L	-	-	-	0.0025	0.0055	0.0101	0.0064
Polycyclic Aromatic Hydrocarbons (PAHs)								
Acenaphthene	mg/L	0.006	-	-	-	-	-	-
Acridine	mg/L	-	-	-	-	-	-	-
Anthracene	mg/L	-	-	-	-	-	-	-
Benz(a)anthracene	mg/L	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/L	0.00001	-	-	-	-	-	-
Chrysene	mg/L	0.0001	-	-	-	-	-	-
Fluoranthene	mg/L	-	-	-	-	-	-	-
Fluorene	mg/L	0.012	-	-	-	-	-	-
1-methylnaphthalene	mg/L	0.001	-	-	-	-	-	-
2-methylnaphthalene	mg/L	0.001	-	-	-	-	-	-
Naphthalene	mg/L	0.001	-	-	-	-	-	-
Phenanthrene	mg/L	-	-	-	-	-	-	-
Pyrene	mg/L	-	-	-	-	-	-	-
Quinoline	mg/L	-	-	-	-	-	-	-
Volatile Organic Compounds (VOCs)								
Benzene	mg/L	0.11	-	-	-	-	-	-
Ethylbenzene	mg/L	0.25	-	-	-	-	-	-
Methyl-tert-butyl-ether	mg/L	5	0.44	-	-	-	-	-
Styrene	mg/L	-	-	-	-	-	-	-
Toluene	mg/L	0.215	-	-	-	-	-	-
Total Xylenes	mg/L	-	-	-	-	-	-	-
Chlorobenzene	mg/L	0.025	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/L	0.042	-	-	-	-	-	-

Notes:
East catchment influents and East WWTP effluent were not discharged to Howe Sound. Results above screening values are only highlighted for comparative purposes.
Non-detect results are screened using the detection limit value.
Results **underlined in bold italics** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.
Results in **orange text** exceed the PE-111578 East Sedimentation Pond Discharge Limit.
The East Catchment did not discharge during the monitoring period (October 19 – 25).
¹ The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs for marine waters.
² The WQG was not evaluated for parameters with discharge limits.
³ The BC WQG for total ammonia is salinity, pH and temperature dependent; see Tables 27E and 27F in BC WQG guidance document.
⁴ The working BC WQG for trivalent antimony [SB(III)] is 0.27 mg/L and is applied to total antimony results.
⁵ When MeHg ≤0.5% of total Hg, the BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.
⁶ The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for each day of Wet Conditions.

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

Parameter	Unit	Lowest Applicable Guideline ¹		PE-111578 Discharge Limit	Station SP-E-IN
					Influent
					SP-E-IN
		Long Term	Short Term		VA25C8166-001 2025-10-22 16:38
General Parameters					
pH - Field	pH units	- ²	-	5.5 - 9.0	7.0
Specific Conductivity - Field	µS/cm	-	-	-	1429
Temperature - Field	°C	-	-	-	10.3
Salinity - Field	ppt	-	-	-	0.72
Turbidity - Field	NTU	-	-	-	417.31
TSS	mg/L	-	-	25 or 75 ⁶	462
Dissolved Oxygen - Field	mg/L	≥8	-	-	11.14
Total Hardness	mg/L	-	-	-	146
Dissolved Hardness	mg/L	-	-	-	68.4
Anions and Nutrients					
Sulphate	mg/L	-	-	-	521
Chloride	mg/L	-	-	-	12.7
Fluoride	mg/L	-	1.5	-	<0.100
Ammonia (N-NH ₃)	mg/L	20 ³	131 ³	-	0.0124
Nitrite (N-NO ₂)	mg/L	-	-	-	0.012
Nitrate (N-NO ₃)	mg/L	3.7	339	-	0.56
Total Organic Carbon (TOC)	mg/L	-	-	-	3.25
Dissolved Organic Carbon (DOC)	mg/L	-	-	-	1.2
Total Metals					
Aluminum, total (T-Al)	mg/L	-	-	-	27.5
Antimony, total (T-Sb)	mg/L	-	0.27 ⁴	-	0.00081
Arsenic, total (T-As)	mg/L	0.0125	-	-	0.00253
Barium, total (T-Ba)	mg/L	-	-	-	0.192
Beryllium, total (T-Be)	mg/L	0.1	-	-	0.000454
Boron, total (T-B)	mg/L	1.2	-	-	0.036
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	0.000143
Chromium, total (T-Cr)	mg/L	-	-	-	0.00771
Cobalt, total (T-Co)	mg/L	-	-	-	0.00715
Copper, total (T-Cu)	mg/L	- ²	- ²	0.0043	0.0135
Iron, total (T-Fe)	mg/L	-	-	-	21.2
Lead, total (T-Pb)	mg/L	- ²	- ²	0.0035	0.00432
Manganese, total (T-Mn)	mg/L	-	-	-	1.01
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.0315
Nickel, total (T-Ni)	mg/L	0.0083	-	-	0.0044
Selenium, total (T-Se)	mg/L	0.002	-	-	0.000266
Silver, total (T-Ag)	mg/L	0.0005	0.0037	-	0.000029
Thallium, total (T-Tl)	mg/L	-	-	-	0.000042
Uranium, total (T-U)	mg/L	-	-	-	0.00671
Vanadium, total (T-V)	mg/L	- ²	-	0.0081	0.0305
Zinc, total (T-Zn)	mg/L	- ²	- ²	0.0133	0.0935
Hexavalent Chromium, total	mg/L	0.0015	-	-	0.00108
Dissolved Metals					
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	0.0000389
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.0012
Iron, dissolved (D-Fe)	mg/L	-	-	-	0.05
Lead, dissolved (D-Pb)	mg/L	-	-	-	0.000068
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.0649
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00050
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.155
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00082
Zinc, dissolved (D-Zn)	mg/L	-	-	-	0.0036
Polycyclic Aromatic Hydrocarbons (PAHs)					
Acenaphthene	mg/L	0.006	-	-	-
Acridine	mg/L	-	-	-	-
Anthracene	mg/L	-	-	-	-
Benz(a)anthracene	mg/L	-	-	-	-
Benzo(a)pyrene	mg/L	0.00001	-	-	-
Chrysene	mg/L	0.0001	-	-	-
Fluoranthene	mg/L	-	-	-	-
Fluorene	mg/L	0.012	-	-	-
1-methylnaphthalene	mg/L	0.001	-	-	-
2-methylnaphthalene	mg/L	0.001	-	-	-
Naphthalene	mg/L	0.001	-	-	-
Phenanthrene	mg/L	-	-	-	-
Pyrene	mg/L	-	-	-	-
Quinoline	mg/L	-	-	-	-
Volatile Organic Compounds (VOCs)					
Benzene	mg/L	0.11	-	-	-
Ethylbenzene	mg/L	0.25	-	-	-
Methyl-tert-butyl-ether	mg/L	5	0.44	-	-
Styrene	mg/L	-	-	-	-
Toluene	mg/L	0.215	-	-	-
Total Xylenes	mg/L	-	-	-	-
Chlorobenzene	mg/L	0.025	-	-	-
1,2-Dichlorobenzene	mg/L	0.042	-	-	-

Notes:
East catchment influents and effluents were not discharged to Howe Sound. Results above screening values are only highlighted for comparative purposes.
Non-detect results are screened using the detection limit value.
Results **underlined in bold italics** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.
Results in **orange text** exceeded the PE-111578 East Sedimentation Pond Discharge Limit.
The East Catchment did not discharge during the monitoring period (October 19 – 25).
¹ The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs for marine waters.
² The WQG was not evaluated for parameters with discharge limits.
³ The BC WQG for total ammonia is salinity, pH and temperature dependent; see Tables 27E and 27F in BC WQG guidance document.
⁴ The working BC WQG for trivalent antimony [SB(III)] is 0.27 mg/L and is applied to total antimony results.
⁵ When MeHg ≤0.5% of total Hg, the BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.
⁶ The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for each day of Wet Conditions.

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

Parameter					Total Methylmercury	Total Mercury
Unit					µg/L	µg/L
Lowest Applicable Guideline ¹					0.0001 ²	0.0079-0.016 ^{3,4}
Station	Water Type	Sample ID	Lab ID	Sampling Date		
Influent						
SP-E-IN	Influent	SP-E-IN	VA25C8166-001	2025-10-22	0.000092	<u>0.0300</u>
WWTP-E-IN	Influent	WWTP-E-IN	VA25C8166-002	2025-10-22	0.000047	0.00405
Effluent						
WWTP-E-OUT	Effluent	WWTP-E-OUT	VA25C8166-003	2025-10-22	<0.000020	0.00157

Notes:
East catchment influents and effluent were not discharged to Howe Sound. Results above screening values are only highlighted for comparative purposes.
Non-detect results are screened using the detection limit value.
Results **underlined in bold italics** exceed the applicable long-term water quality guideline for the protection of marine aquatic life.
¹ The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
² From BC Ambient Water Quality Guidelines for Mercury Overview Report. The methylmercury concentration threshold of 0.0001 µg/L (0.1 ng/L) is indicated as a WQG for the protection of wildlife and is set at a concentration that protects fish from mercury bioaccumulation to a level that may harm wildlife that consume fish.
³ CCME guideline for total mercury = 0.016 µg/L.
⁴ When MeHg ≤ 0.5% of total Hg, BC WQG = 0.02 µg/L. When MeHg > 0.5% of total Hg, BC WQG = 0.0001/(MeHg/Total Hg). Detection limit values are used to calculate the WQG for result reported as not detected.

Table B-4:
East Catchment Dioxin and Furan Toxicity Equivalency Quantity (TEQ) Results Received at the Time of Reporting.

Parameter					Lower Bound PCDD/F TEQ	Upper Bound PCDD/F TEQ
Unit					pg/L	pg/L
Station	Water Type	Sample ID	Lab ID	Sampling Date		
Influent						
SP-E-IN	Influent	SP-E-IN	VA25C7091-001	2025-10-11	0.0738	1.62
WWTP-E-IN	Influent	WWTP-E-IN	VA25C7091-002	2025-10-11	0.00621	1.76
Effluent						
WWTP-E-OUT	Effluent	WWTP-E-OUT	VA25C7091-003	2025-10-11	0.0493	1.63

Notes:
PCDD = polychlorinated dibenzodioxins (dioxins)
PCDF = polychlorinated dibenzofurans (furans)
TEQ = toxic equivalency
Lower bound PCDD/F TEQ is the sum of the toxic equivalency results for the individual PCDD/F parameters. Non-detectable parameters are assigned a value of zero (0).
Upper bound PCDD/F TEQ is the sum of the toxic equivalency results for the individual PCDD/F parameters. Non-detectable parameters are assigned the value of the detection limit.

Table B-5:
East Catchment Field Measurements Collected During the Monitoring Period (October 19 – 25).

Parameter			Temp.	Dissolved Oxygen (DO)	Salinity	Turbidity	Estimated TSS ³	pH	Specific Conductivity	Visibility of Sheen
Unit			°C	mg/L	ppt	NTU	mg/L	s.u.	µS/cm	
PE-111578 Discharge Limit			-	-	-	-	25 or 75 ⁶	5.5 - 9.0	-	-
Lowest Applicable Guideline ¹			-	≥8	-	-	- ²	- ²	-	-
Station ID	Water Type	Date								
Influent ⁴										
SP-E-IN	Influent	2025-10-19 15:58	10.0	11.20	0.50	229.89	174.5	6.8	1003	No
SP-E-IN	Influent	2025-10-20 16:22	10.5	11.51	0.68	23.01	20.2	6.1	1347	No
SP-E-IN	Influent	2025-10-21 12:56	11.6	11.36	1.05	20.79	18.5	6.7	2051	No
SP-E-IN	Influent	2025-10-22 16:38	10.3	11.14	0.72	417.31	314.2	7.0	1429	No
SP-E-IN	Influent	2025-10-23 16:13	10.6	9.96	0.59	206.47	157.0	6.8	1182	No
SP-E-IN	Influent	2025-10-24 10:13	11.3	10.97	0.58	478.81	360.1	9.6	1165	No
SP-E-IN	Influent	2025-10-25 8:30	10.2	10.40	0.48	173.67	132.5	6.9	958	No
WWTP-E-IN	Influent	2025-10-19 15:35	11.9	11.64	0.49	147.01	112.6	7.0	983	No
WWTP-E-IN	Influent	2025-10-20 16:30	10.2	11.10	0.51	100.79	78.2	6.6	1027	No
WWTP-E-IN	Influent	2025-10-21 13:02	12.2	10.87	0.65	43.61	35.5	6.2	1300	No
WWTP-E-IN	Influent	2025-10-22 10:00	10.6	11.01	0.73	20.62	18.4	6.7	1437	No
WWTP-E-IN	Influent	2025-10-23 15:57	11.2	11.30	0.79	24.09	21.0	6.5	1557	No
WWTP-E-IN	Influent	2025-10-24 10:28	11.3	10.50	0.58	184.55	140.6	7.5	1153	No
WWTP-E-IN	Influent	2025-10-25 8:35	11.3	10.01	0.43	111.89	86.4	7.1	877	No
Effluent ⁵										
WWTP-E-OUT	Effluent	2025-10-19 15:51	10.5	10.48	0.84	4.93	6.7	6.3	1646	No
WWTP-E-OUT	Effluent	2025-10-20 16:42	10.2	11.81	0.57	1.84	4.4	6.7	1133	No
WWTP-E-OUT	Effluent	2025-10-21 13:12	11.7	11.31	1.13	2.47	4.8	5.9	2192	No
WWTP-E-OUT	Effluent	2025-10-22 16:08	10.8	10.16	0.92	3.28	5.4	6.4	1808	No
WWTP-E-OUT	Effluent	2025-10-23 16:06	10.8	<u>5.05</u> ⁷	0.94	0.07	3.1	6.5	1848	No
WWTP-E-OUT	Effluent	2025-10-24 10:32	11.1	10.13	1.07	1.49	4.1	8.6	2081	No
WWTP-E-OUT	Effluent	2025-10-24 14:32	11.5	10.69	0.87	1.12	3.8	8.3	1711	No
WWTP-E-OUT	Effluent	2025-10-25 8:41	11.3	10.53	1.93	1.13	3.8	5.5	3646	No
WWTP-E-OUT	Effluent	2025-10-25 14:44	10.7	10.97	2.14	1.58	4.2	6.4	4026	No

Notes:
The east catchment did not discharge to Howe Sound during the monitoring period (October 5 – 11). Results above screening values are highlighted for comparative purposes.
Results **underlined in bold italics** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.
Results in **orange text** exceed the PE-111578 East Sedimentation Pond Discharge Limit.
¹ The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
² The WQG was not evaluated for parameters with discharge limits.
³ TSS concentration is estimated from field turbidity measurements using a site-specific relationship TSS = 0.7458 * [turbidity as NTU] + 3.
⁴ Daily field measurements for station SP-E-IN were collected from cell 1 of the East Sedimentation Pond.
⁵ There was no discharge at the authorized discharge location (SP-E-OUT) during the monitoring period (October 19 – 25), 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 each day of Wet Conditions.
⁷ East WWTP effluent was directed to the East Sedimentation Pond and there was no discharge from the pond to Howe Sound on October 23.

Table B-6:
East Catchment Daily Discharge Volumes for the Monitoring Period (October 19 – 25).

	East Sedimentation Pond Effluent	Transfer to West Sedimentation Pond	East WWTP Treated Effluent (Station WWTP-E-OUT) ²	Discharge to Howe Sound (Station SP-E-OUT)
Unit	m ³	m ³	m ³	m ³
PE-111578 Discharge Limit	-	-	1100	- ¹
Date				
2025-10-19	0	340	174	0
2025-10-20	0	445	427	0
2025-10-21	0	0	259	0
2025-10-22	0	0	269	0
2025-10-23	0	0	27	0
2025-10-24	0	1,246	221	0
2025-10-25	0	163	220	0

Notes:

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

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

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

Appendix C:
West Catchment Monitoring Results

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

Parameter	Unit	Lowest Applicable Guideline ¹		PE-111578 Discharge Limit	Station 2700GPM-IN
					Influent
					W2700-IN
		VA25C7848-002			
					2025-10-20 10:48
General Parameters					
pH - Field	pH units	- ²	-	5.5 - 9.0	7.43
Specific Conductivity - Field	µS/cm	-	-	-	553
Temperature - Field	°C	-	-	-	10.8
Salinity - Field	ppt	-	-	-	0.27
Turbidity - Field	NTU	-	-	-	98.32
TSS	mg/L	-	-	25 or 75 ⁶	51.3
Dissolved Oxygen - Field	mg/L	≥8	-	-	11.02
Total Hardness	mg/L	-	-	-	91
Dissolved Hardness	mg/L	-	-	-	76
Anions and Nutrients					
Sulphate	mg/L	-	-	-	166
Chloride	mg/L	-	-	-	12.7
Fluoride	mg/L	-	1.5	-	0.077
Ammonia (N-NH ₃)	mg/L	7.8 ³	52 ³	-	0.0122
Nitrite (N-NO ₂)	mg/L	-	-	-	0.0126
Nitrate (N-NO ₃)	mg/L	3.7	339	-	1.13
Total Organic Carbon (TOC)	mg/L	-	-	-	4.23
Dissolved Organic Carbon (DOC)	mg/L	-	-	-	2.62
Total Metals					
Aluminum, total (T-Al)	mg/L	-	-	-	5.83
Antimony, total (T-Sb)	mg/L	-	0.27 ⁴	-	0.00111
Arsenic, total (T-As)	mg/L	0.0125	-	-	0.00167
Barium, total (T-Ba)	mg/L	-	-	-	0.049
Beryllium, total (T-Be)	mg/L	0.1	-	-	0.000093
Boron, total (T-B)	mg/L	1.2	-	-	0.026
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	0.0000661
Chromium, total (T-Cr)	mg/L	-	-	-	0.00244
Cobalt, total (T-Co)	mg/L	-	-	-	0.00161
Copper, total (T-Cu)	mg/L	- ²	- ²	0.0043	0.00606
Iron, total (T-Fe)	mg/L	-	-	-	4.3
Lead, total (T-Pb)	mg/L	- ²	- ²	0.0035	0.0045
Manganese, total (T-Mn)	mg/L	-	-	-	0.177
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.0331
Nickel, total (T-Ni)	mg/L	0.0083	-	-	0.00137
Selenium, total (T-Se)	mg/L	0.002	-	-	0.000151
Silver, total (T-Ag)	mg/L	0.0005	0.0037	-	0.000019
Thallium, total (T-Tl)	mg/L	-	-	-	0.000028
Uranium, total (T-U)	mg/L	-	-	-	0.00738
Vanadium, total (T-V)	mg/L	- ²	-	0.0081	0.00826
Zinc, total (T-Zn)	mg/L	- ²	- ²	0.0133	0.0258
Hexavalent Chromium, total	mg/L	0.0015	-	-	0.0007
Dissolved Metals					
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000200
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00126
Iron, dissolved (D-Fe)	mg/L	-	-	-	0.028
Lead, dissolved (D-Pb)	mg/L	-	-	-	<0.000050
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.0195
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00050
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.126
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00132
Zinc, dissolved (D-Zn)	mg/L	-	-	-	0.0032
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	-	-	-	0.000016
Benzo(a)pyrene	mg/L	0.00001	-	-	0.0000157
Chrysene	mg/L	0.0001	-	-	0.000015
Fluoranthene	mg/L	-	-	-	0.000029
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	-	-	-	0.000032
Quinoline	mg/L	-	-	-	<0.000050
Volatile Organic Compounds (VOCs)					
Benzene	mg/L	0.11	-	-	<0.00050
Ethylbenzene	mg/L	0.25	-	-	<0.00050
Methyl-tert-butyl-ether	mg/L	5	0.44	-	<0.00050
Styrene	mg/L	-	-	-	<0.00050
Toluene	mg/L	0.215	-	-	<0.00040
Total Xylenes	mg/L	-	-	-	<0.00050
Chlorobenzene	mg/L	0.025	-	-	<0.00050
1,2-Dichlorobenzene	mg/L	0.042	-	-	<0.00050

Notes:
West catchment influents were not discharged to Howe Sound. Influent results above screening values are only highlighted for comparative purposes.
Non-detect results are screened using the detection limit value.
Results **underlined in bold italics** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.
Results in **orange text** exceed the PE-111578 West Sedimentation Pond Discharge Limit.
The West Catchment intermittently discharged each day during the monitoring period (October 19 – 25) except on October 22.
¹ The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs for marine waters.
² The WQG was not evaluated for parameters with discharge limits.
³ The BC WQG for total ammonia is salinity, pH and temperature dependent; see Tables 27E and 27F in BC WQG guidance document.
⁴ The working BC WQG for trivalent antimony [SB(III)] is 0.27 mg/L and is applied to total antimony results.
⁵ When MeHg ≤0.5% of total Hg, the BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.
⁶ The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for each day of Wet Conditions.

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

Parameter	Unit	Lowest Applicable Guideline ¹		PE-111578 Discharge Limit	Station SP-W-IN	Station SP-W-OUT
					Influent	Effluent
					SP-W-IN	SP-W-OUT
		VA25C7848-001 2025-10-20 14:44	VA25C7848-003 2025-10-20 13:33			
General Parameters						
pH - Field	pH units	- ²	-	5.5 - 9.0	7.03	7.81
Specific Conductivity - Field	µS/cm	-	-	-	822	552
Temperature - Field	°C	-	-	-	10.2	10.5
Salinity - Field	ppt	-	-	-	0.41	0.27
Turbidity - Field	NTU	-	-	-	81.2	1.33
TSS	mg/L	-	-	25 or 75 ⁶	35.9	<3.0
Dissolved Oxygen - Field	mg/L	≥8	-	-	11.37	11.89
Total Hardness	mg/L	-	-	-	78.9	76.9
Dissolved Hardness	mg/L	-	-	-	66.2	77.8
Anions and Nutrients						
Sulphate	mg/L	-	-	-	270	169
Chloride	mg/L	-	-	-	16.1	13.1
Fluoride	mg/L	-	1.5	-	<0.100	0.073
Ammonia (N-NH ₃)	mg/L	3.1-20 ³	21-131 ³	-	<0.0050	<0.0050
Nitrite (N-NO ₂)	mg/L	-	-	-	0.0129	0.0142
Nitrate (N-NO ₃)	mg/L	3.7	339	-	0.992	0.932
Total Organic Carbon (TOC)	mg/L	-	-	-	2.67	2.31
Dissolved Organic Carbon (DOC)	mg/L	-	-	-	1.78	2.4
Total Metals						
Aluminum, total (T-Al)	mg/L	-	-	-	4.03	0.0397
Antimony, total (T-Sb)	mg/L	-	0.27 ⁴	-	0.00108	0.00106
Arsenic, total (T-As)	mg/L	0.0125	-	-	0.00115	0.00087
Barium, total (T-Ba)	mg/L	-	-	-	0.0419	0.00262
Beryllium, total (T-Be)	mg/L	0.1	-	-	0.000061	<0.000020
Boron, total (T-B)	mg/L	1.2	-	-	0.036	0.023
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000650	<0.0000200
Chromium, total (T-Cr)	mg/L	-	-	-	0.00228	<0.00050
Cobalt, total (T-Co)	mg/L	-	-	-	0.00125	<0.00010
Copper, total (T-Cu)	mg/L	- ²	- ²	0.0043	0.0036	0.00144
Iron, total (T-Fe)	mg/L	-	-	-	3.16	0.027
Lead, total (T-Pb)	mg/L	- ²	- ²	0.0035	0.00139	0.000073
Manganese, total (T-Mn)	mg/L	-	-	-	0.165	0.00314
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.041	0.0318
Nickel, total (T-Ni)	mg/L	0.0083	-	-	0.00117	<0.00050
Selenium, total (T-Se)	mg/L	0.002	-	-	0.000197	0.000127
Silver, total (T-Ag)	mg/L	0.0005	0.0037	-	0.00001	<0.000010
Thallium, total (T-Tl)	mg/L	-	-	-	0.000017	0.000013
Uranium, total (T-U)	mg/L	-	-	-	0.0069	0.00527
Vanadium, total (T-V)	mg/L	- ²	-	0.0081	0.00609	0.001
Zinc, total (T-Zn)	mg/L	- ²	- ²	0.0133	0.02	<0.0030
Hexavalent Chromium, total	mg/L	0.0015	-	-	0.00075	<0.00050
Dissolved Metals						
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000450	<0.0000200
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00117	0.00084
Iron, dissolved (D-Fe)	mg/L	-	-	-	<0.010	0.011
Lead, dissolved (D-Pb)	mg/L	-	-	-	0.000062	<0.000050
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.0361	0.00414
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00050	<0.00050
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.129	0.116
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00113	0.00089
Zinc, dissolved (D-Zn)	mg/L	-	-	-	0.0043	0.0016
Polycyclic Aromatic Hydrocarbons (PAHs)						
Acenaphthene	mg/L	0.006	-	-	-	<0.000010
Acridine	mg/L	-	-	-	-	<0.000010
Anthracene	mg/L	-	-	-	-	<0.000010
Benz(a)anthracene	mg/L	-	-	-	-	<0.000010
Benzo(a)pyrene	mg/L	0.00001	-	-	-	<0.0000050
Chrysene	mg/L	0.0001	-	-	-	<0.000010
Fluoranthene	mg/L	-	-	-	-	<0.000010
Fluorene	mg/L	0.012	-	-	-	<0.000010
1-methylnaphthalene	mg/L	0.001	-	-	-	<0.000010
2-methylnaphthalene	mg/L	0.001	-	-	-	<0.000010
Naphthalene	mg/L	0.001	-	-	-	<0.000050
Phenanthrene	mg/L	-	-	-	-	<0.000020
Pyrene	mg/L	-	-	-	-	<0.000010
Quinoline	mg/L	-	-	-	-	<0.000050
Volatile Organic Compounds (VOCs)						
Benzene	mg/L	0.11	-	-	-	<0.00050
Ethylbenzene	mg/L	0.25	-	-	-	<0.00050
Methyl-tert-butyl-ether	mg/L	5	0.44	-	-	<0.00050
Styrene	mg/L	-	-	-	-	<0.00050
Toluene	mg/L	0.215	-	-	-	<0.00040
Total Xylenes	mg/L	-	-	-	-	<0.00050
Chlorobenzene	mg/L	0.025	-	-	-	<0.00050
1,2-Dichlorobenzene	mg/L	0.042	-	-	-	<0.00050

Notes:
West catchment influents were not discharged to Howe Sound. Influent results above screening values are only highlighted for comparative purposes.
Non-detect results are screened using the detection limit value.
Results **underlined in bold italics** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.
Results in **orange text** exceed the PE-111578 West Sedimentation Pond Discharge Limit.
The West Catchment intermittently discharged each day during the monitoring period (October 19 – 25) except on October 22.
¹ The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs for marine waters.
² The WQG was not evaluated for parameters with discharge limits.
³ The BC WQG for total ammonia is salinity, pH and temperature dependent; see Tables 27E and 27F in BC WQG guidance document.
⁴ The working BC WQG for trivalent antimony [SB(III)] is 0.27 mg/L and is applied to total antimony results.
⁵ When MeHg ≤0.5% of total Hg, the BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.
⁶ The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for each day of Wet Conditions.

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	0.0026-0.020 ^{3,4}
Station	Water Type	Sample ID	Lab ID	Sampling Date		
Influent						
SP-W-IN	Influent	SP-W-IN	VA25C7848-001	2025-10-20	0.000072	0.00502
2700GPM-IN	Influent	W2700-IN	VA25C7848-002	2025-10-20	0.000090	0.0172
Effluent						
SP-W-OUT	Effluent	SP-W-OUT	VA25C7848-003	2025-10-20	0.000025	0.00066

Notes:
West catchment influents were not discharged to Howe Sound. Results above screening values are only highlighted for comparative purposes.
Non-detect results are screened using the detection limit value.

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

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

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

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

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

Table C-4:
West Catchment Field Measurements Collected During the Monitoring Period (October 19 – 25).

Parameter			Temperature	Dissolved Oxygen (DO)	Salinity	Turbidity	Estimated TSS ³	pH	Specific Conductivity	Visibility of Sheen
Unit			°C	mg/L	ppt	NTU	mg/L	s.u.	µS/cm	
PE-111578 Discharge Limit			-	-	-	-	25 or 75 ⁶	5.5 - 9.0	-	-
Lowest Applicable Guideline ¹			-	≥8	-	-	- ²	- ²	-	-
Station ID	Water Type	Date								
Influent ⁴										
SP-W-IN	Influent	2025-10-19 10:07	9.6	11.21	0.33	82.19	64.3	8.3	680	No
SP-W-IN	Influent	2025-10-20 14:44	10.2	11.37	0.41	81.2	63.6	7.03	822	No
SP-W-IN	Influent	2025-10-21 9:22	10.7	10.37	0.27	49.22	39.7	7.46	556	No
SP-W-IN	Influent	2025-10-22 16:46	10.7	10.85	0.35	237.72	180.3	7.5	714	No
SP-W-IN	Influent	2025-10-23 16:49	11.0	10.89	0.36	43.48	35.4	8.13	725	No
SP-W-IN	Influent	2025-10-24 8:30	11.2	10.87	0.35	266.38	201.7	7.9	706	No
SP-W-IN	Influent	2025-10-25 7:54	10.8	11.1	0.25	32.09	26.9	6.53	508	No
2700GPM-IN	Influent	2025-10-19 9:34	9.7	11.46	0.40	90.78	70.7	8.7	813	No
2700GPM-IN	Influent	2025-10-20 10:48	10.8	11.02	0.27	98.32	76.3	7.4	553	No
2700GPM-IN	Influent	2025-10-21 9:19	10.6	10.59	0.34	66.27	52.4	7.5	687	No
2700GPM-IN	Influent	2025-10-21 14:22	12.3	10.98	0.34	37.92	31.3	7.7	690	No
2700GPM-IN	Influent	2025-10-22 15:38	10.5	11.05	0.37	19.73	17.7	8.3	760	No
2700GPM-IN	Influent	2025-10-23 16:44	11.0	10.92	0.35	31.33	26.4	8.1	719	No
2700GPM-IN	Influent	2025-10-24 8:26	11.2	10.76	0.47	43.10	35.1	7.7	955	No
2700GPM-IN	Influent	2025-10-25 7:57	10.9	10.91	0.29	66.23	52.4	7.4	591	No
Effluent ⁵										
SP-W-OUT	Effluent	2025-10-19 11:35	9.7	11.02	0.33	1.17	3.9	8.4	765	No
SP-W-OUT	Effluent	2025-10-19 16:16	11.0	10.64	0.35	0.94	3.7	7.9	713	No
SP-W-OUT	Effluent	2025-10-20 13:33	10.5	11.89	0.27	1.33	4.0	7.8	552	No
SP-W-OUT	Effluent	2025-10-20 13:59	10.5	11.69	0.27	1.46	4.1	7.8	548	No
SP-W-OUT ⁵	Effluent	2025-10-21 ⁵	10.7 ⁵	- ⁵	- ⁵	4.4 ⁵	6.3 ⁵	7.0 ⁵	- ⁵	- ⁵
SP-W-OUT ⁵	Effluent	2025-10-23 ⁵	11.7 ⁵	- ⁵	- ⁵	8.2 ⁵	9.1 ⁵	7.6 ⁵	- ⁵	- ⁵
SP-W-OUT	Effluent	2025-10-24 8:20	11.2	11.24	0.48	3.07	5.3	7.8	970	No
SP-W-OUT	Effluent	2025-10-24 12:56	11.1	11.20	0.46	4.57	6.4	7.3	926	No
SP-W-OUT	Effluent	2025-10-25 8:00	11.0	10.50	0.31	0.49	3.4	7.7	624	No
SP-W-OUT	Effluent	2025-10-25 10:52	10.9	10.49	0.28	1.45	4.1	8.0	573	No
2700GPM-OUT	Effluent	2025-10-19 9:57	9.5	11.10	0.38	0.98	3.7	8.3	777	No
2700GPM-OUT	Effluent	2025-10-20 13:03	10.4	11.82	0.27	5.42	7.0	7.7	558	No
2700GPM-OUT	Effluent	2025-10-21 14:12	11.3	11.05	0.35	2.31	4.7	7.9	714	No
2700GPM-OUT	Effluent	2025-10-22 15:42	10.5	10.34	0.42	2.71	5.0	8.2	853	No
2700GPM-OUT	Effluent	2025-10-23 16:33	11.3	11.21	0.36	4.45	6.3	7.9	728	No

Notes:
West catchment influents for October 19 – 25 were not discharged to Howe Sound. Results above screening values are only highlighted for comparative purposes.
Results **underlined in bold italics** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.

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

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

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

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

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

⁵ As described in Section 1.1, when there is surplus water, West Sedimentation Pond clarified effluent from the individual 2700GPM trains is directed to SP-W-OUT for discharge. 2700GPM clarified effluent from Trains 1, 2, 3 and 4 was intermittently discharged to Howe Sound at the authorized discharge location (SP-W-OUT) each day during the monitoring period (October 19 – 25) except on October 22. There was no discharge at the authorized discharge location (SP-W-OUT) at the time of monitoring on October 21 and 23; therefore, average pH, turbidity and temperature collected at the effluent meter box of the active treatment trains during the period of discharge is shown in Table C-4. On October 21, only clarified effluent from Train 1 discharged at SP-W-OUT and on October 23, only clarified effluent from Train 3 discharged at SP-W-OUT. There was no discharge at SP-W-OUT on October 22; therefore, daily field measurements for SP-W-OUT were not collected that day.

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.

**Table C-5:
West Catchment Daily Discharge Volumes for the Monitoring Period (October 19 – 25).**

	West Sedimentation Pond Effluent	West TSS Settling System (2700GPM) Clarified Effluent (Station 2700GPM-OUT)³	Water Reclaimed for Construction Purposes (Station 2700GPM-OUT)	West WWTP Treated Effluent ¹ (Station WWTP-W-OUT)	Discharge to Howe Sound (Station SP-W-OUT)
Unit	m³	m³	m³	m³	m³
PE-111578 Discharge Limit	-	-	-	120	- ²
Date					
2025-10-19	0	2,720	0	0	833
2025-10-20	0	1,489	0	0	1,248
2025-10-21	0	2,205	0	0	170
2025-10-22	0	1,294	0	0	0
2025-10-23	0	2,114	0	0	69
2025-10-24	0	4,616	0	0	3,065
2025-10-25	0	4,405	0	0	4,228

Notes:

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

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

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

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

***Appendix D:
Non-Contact Water Diversion Ditch Outlets
Monitoring Results***

Table D-1:
Summary of Non-Contact Water Diversion Ditch Outlet Water Quality Results Received at the Time of Reporting.

Parameter	Unit	Lowest Applicable Guideline ^{1, 2}		Station OUT-02
				Non-Contact Water Diversion Ditch Outlet
				OUT-02
		Long Term	Short Term	VA25C7228-001 2025-10-14 13:30
General Parameters				
pH - Field	pH units	6.5 - 9.0	-	7.0
Specific Conductivity - Field	µS/cm	-	-	21
Temperature - Field	°C	-	-	10.2
Salinity - Field	ppt	-	-	0.01
Turbidity - Field	NTU	-	-	0.81
TSS	mg/L	-	-	<3.0
Dissolved Oxygen - Field	mg/L	>=8	>=5	10.98
Total Hardness	mg/L	-	-	6.03
Dissolved Hardness	mg/L	-	-	6.06
Anions and Nutrients				
Sulphate ²	mg/L	128	-	2.28
Chloride	mg/L	120	600	0.85
Fluoride ²	mg/L	-	0.400	<0.020
Ammonia (N-NH ₃) ²	mg/L	1.84	20.5	0.0067
Nitrite (N-NO ₂) ²	mg/L	0.02	0.06	<0.0010
Nitrate (N-NO ₃)	mg/L	3	32.8	0.0606
Total Organic Carbon (TOC)	mg/L	-	-	3.16
Total Inorganic Carbon (DOC)	mg/L	-	-	3.18
Total Metals				
Aluminum, total (T-Al) ²	mg/L	0.0759	-	<u>0.111</u>
Antimony, total (T-Sb)	mg/L	0.074	-	<0.00010
Arsenic, total (T-As)	mg/L	0.005	-	0.00013
Barium, total (T-Ba)	mg/L	1	-	0.00358
Beryllium, total (T-Be)	mg/L	0.00013	-	<0.000020
Boron, total (T-B)	mg/L	1.2	29	<0.010
Cadmium, total (T-Cd) ²	mg/L	0.000036	0.000121	0.0000055
Chromium, total (T-Cr) ³	mg/L	0.001	-	<0.00050
Cobalt, total (T-Co) ²	mg/L	0.000778	-	<0.00010
Copper, total (T-Cu)	mg/L	-	-	0.00059
Iron, total (T-Fe)	mg/L	0.3	1	0.014
Lead, total (T-Pb)	mg/L	-	-	<0.000050
Manganese, total (T-Mn) ²	mg/L	0.768	0.816	0.00058
Molybdenum, total (T-Mo)	mg/L	0.073	46	0.000002
Nickel, total (T-Ni) ²	mg/L	0.0250	-	0.00123
Selenium, total (T-Se)	mg/L	0.001	-	<0.00050
Silver, total (T-Ag)	mg/L	0.00012	-	<0.000050
Thallium, total (T-Tl)	mg/L	0.0008	-	<0.000010
Uranium, total (T-U)	mg/L	0.0085	0.033	<0.000010
Vanadium, total (T-V)	mg/L	0.12	-	0.000213
Zinc, total (T-Zn)	mg/L	-	-	<0.00050
Hexavalent Chromium, total	mg/L	0.001	-	<0.0030
Dissolved Metals				
Cadmium, dissolved (D-Cd) ²	mg/L	0.000027	0.000038	0.0000064
Copper, dissolved (D-Cu) ²	mg/L	0.00031	0.00196	<u>0.00050</u>
Iron, dissolved (D-Fe)	mg/L	-	0.35	<0.010
Lead, dissolved (D-Pb) ²	mg/L	0.00206	-	<0.000050
Manganese, dissolved (D-Mn) ²	mg/L	0.38	1.97	0.00066
Nickel, dissolved (D-Ni) ²	mg/L	0.00070	0.0117	<0.00050
Strontium, dissolved (D-Sr)	mg/L	2.5	-	0.00804
Vanadium, dissolved (D-V)	mg/L	-	-	<0.00050
Zinc, dissolved (D-Zn) ²	mg/L	0.0053	0.0099	0.0014
Polycyclic Aromatic Hydrocarbons (PAHs)				
Acenaphthene	mg/L	0.0058	-	-
Acridine	mg/L	0.003	-	-
Anthracene	mg/L	0.000012	-	-
Benz(a)anthracene	mg/L	0.000018	-	-
Benzo(a)pyrene	mg/L	0.000001	-	-
Chrysene	mg/L	-	-	-
Fluoranthene	mg/L	0.00004	-	-
Fluorene	mg/L	0.003	-	-
1-methylnaphthalene	mg/L	-	-	-
2-methylnaphthalene	mg/L	-	-	-
Naphthalene	mg/L	0.001	0.001	-
Phenanthrene	mg/L	0.0003	-	-
Pyrene	mg/L	0.000002	-	-
Quinoline	mg/L	0.0034	-	-
Volatile Organic Compounds (VOCs)				
Benzene	mg/L	0.04	-	-
Ethylbenzene	mg/L	0.09	-	-
Methyl-tert-butyl-ether	mg/L	10	3.4	-
Styrene	mg/L	0.072	-	-
Toluene	mg/L	0.0005	-	-
Total Xylenes	mg/L	0.03	-	-
Chlorobenzene	mg/L	-	-	-
1,2-Dichlorobenzene	mg/L	-	-	-

Notes:

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

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

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

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

² BC WQG or CWQG indicated to be variable are calculated from sample-specific measurements for temperature, field pH, total hardness and dissolved organic carbon (DOC) content.

³ The approved BC WQG for hexavalent chromium [Cr(VI)] is 0.001 mg/L and 0.0089 mg/L for trivalent chromium [Cr(III)]. The more conservative criteria for Cr(VI) is applied to total chromium results.

The lowest applicable guidelines are shown in the table; however, water quality data was screened to all applicable guidelines.

Table D-2:
Non-Contact Water Diversion Ditch Outlet 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	0.0059-0.026 ^{3,4}
Station	Description	Sample ID	Lab ID	Sampling Date		
OUT-01	Non-Contact Water Diversion Ditch Outlet	OUT-01	VA25C5809-001	2025-09-29	0.000039	0.00418
OUT-02	Non-Contact Water Diversion Ditch Outlet	OUT-02	VA25C5809-002	2025-09-29	0.000073	0.00432

Notes:

Results **underlined in bold italics** exceed the applicable long-term water quality guideline for the protection of freshwater 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 = 0.026 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.

Appendix E:
Marine Water Receiving Environment Results

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

Parameter	Unit	Lowest Applicable Guideline ¹		Station IDZ-E1	Station IDZ-E1	Station IDZ-E1	Station IDZ-E2	Station IDZ-E2	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
		VA25C6871-001	VA25C6871-002	VA25C6871-003	VA25C6871-004	VA25C6871-005	VA25C6871-006		
Long Term	Short Term	2025-10-09 14:40	2025-10-09 14:30	2025-10-09 14:20	2025-10-09 13:15	2025-10-09 13:30	2025-10-09 13:40		
General Parameters									
pH - Field	pH units	7.0 - 8.7	-	7.59	7.41	7.51	7.51	7.44	7.33
Specific Conductivity - Field	µS/cm	-	-	38448	32310	29404	39373	40217	45391
Temperature - Field	°C	-	-	11.9	10.5	11.7	11.7	11.6	10.5
Salinity - Field	ppt	Narrative ²	-	24.41	28.73	25.07	25.07	25.64	29.26
Turbidity - Field	NTU	Narrative ²	Narrative ²	1.36	0.45	1.73	1.73	1.59	0.85
TSS	mg/L	Narrative ²	Narrative ²	<2.0	2.0	<2.0	<2.0	2.4	<2.0
Dissolved Oxygen - Field	mg/L	>=8	-	<u>6.80</u>	<u>5.26</u>	<u>6.79</u>	<u>6.79</u>	<u>6.24</u>	<u>5.74</u>
Total Hardness	mg/L	-	-	4280	4580	5290	4160	4800	5180
Dissolved Hardness	mg/L	-	-	4160	4690	5410	4220	4650	5340
Anions and Nutrients									
Sulphate	mg/L	-	-	1940	2170	2410	1990	2010	2460
Chloride	mg/L	-	-	13600	15300	17100	14000	14500	17400
Fluoride	mg/L	-	1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ammonia (N-NH ₃)	mg/L	8.1-14 ³	54-94 ³	0.0120	0.0131	0.0113	0.0101	0.0077	0.012
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	0.86	<0.50	<0.50	<0.50
Total Organic Carbon (TOC)	mg/L	-	-	1.47	0.95	1.09	1.06	1.18	0.76
Dissolved Organic Carbon (DOC)	mg/L	-	-	1.05	0.93	1.02	1.04	0.94	0.8
Total Metals									
Aluminum, total (T-Al)	mg/L	-	-	0.0471	0.0331	0.0213	0.0424	0.0315	0.0257
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	0.00124	0.00139	0.00157	0.00125	0.00139	0.00157
Barium, total (T-Ba)	mg/L	-	-	0.0142	0.0131	0.0117	0.0146	0.0126	0.0117
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	-	<u>2.50</u>	<u>2.65</u>	<u>2.95</u>	<u>2.51</u>	<u>2.75</u>	<u>2.85</u>
Cadmium, total (T-Cd)	mg/L	0.00012	-	0.000070	0.000068	0.000090	0.000068	0.000071	0.00008
Chromium, total (T-Cr)	mg/L	-	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, total (T-Co)	mg/L	-	-	0.000132	0.000134	0.000124	0.000134	0.000127	0.000125
Copper, total (T-Cu)	mg/L	0.002	0.003	0.00119	0.00136	0.00087	0.00150	0.0011	0.00078
Iron, total (T-Fe)	mg/L	-	-	0.069	0.052	0.033	0.072	0.048	0.043
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	-	-	0.0116	0.00996	0.00843	0.0115	0.00938	0.00819
Molybdenum, total (T-Mo)	mg/L	-	-	0.00802	0.00819	0.00912	0.00758	0.00854	0.00897
Nickel, total (T-Ni)	mg/L	0.0083	-	<0.00050	0.00052	0.00061	0.00069	0.00075	0.00072
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	0.0005	0.0037	<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	-	-	0.00204	0.00226	0.00252	0.00210	0.00227	0.00244
Vanadium, total (T-V)	mg/L	0.005	-	0.00134	0.00132	0.00148	0.00129	0.0014	0.00143
Zinc, total (T-Zn)	mg/L	0.01	0.055	<0.0030	0.0030	<0.0030	0.0056	0.0037	0.0039
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	-	-	0.000069	0.000065	0.000086	0.000071	0.000072	0.000071
Copper, dissolved (D-Cu)	mg/L	-	-	0.00089	0.00087	0.00067	0.00109	0.0013	<0.00050
Iron, dissolved (D-Fe)	mg/L	-	-	<0.010	0.014	0.015	<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	-	-	0.00918	0.00848	0.00786	0.00937	0.00875	0.00858
Nickel, dissolved (D-Ni)	mg/L	-	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.00053
Strontium, dissolved (D-Sr)	mg/L	-	-	5.45	6.30	6.90	5.61	6.16	6.77
Vanadium, dissolved (D-V)	mg/L	-	-	0.00108	0.00124	0.00137	0.00113	0.00119	0.00133
Zinc, dissolved (D-Zn)	mg/L	-	-	0.0018	0.0019	0.0022	0.0016	0.0021	0.0017
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	-	<0.000010	<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 Induced guidelines for 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 short-term and long-term 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 E-2:
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	0.5 m Below Surface
				IDZ-W1-0.5	IDZ-W2-0.5
		VA25C7126-001	VA25C7126-002		
		Long Term	Short Term	2025-10-10 9:45	2025-10-10 9:15
General Parameters					
pH - Field	pH units	7.0 - 8.7	-	7.5.0	7.54
Specific Conductivity - Field	µS/cm	-	-	39347	40470
Temperature - Field	°C	-	-	11.1	10.7
Salinity - Field	ppt	Narrative ²	-	25.01	25.78
Turbidity - Field	NTU	Narrative ²	Narrative ²	2.25	1.51
TSS	mg/L	Narrative ²	Narrative ²	<2.0	2.3
Dissolved Oxygen - Field	mg/L	>=8	-	<u>6.17</u>	<u>5.12</u>
Total Hardness	mg/L	-	-	3800	4220
Dissolved Hardness	mg/L	-	-	3620	4060
Anions and Nutrients					
Sulphate	mg/L	-	-	1580	1720
Chloride	mg/L	-	-	11700	12500
Fluoride	mg/L	-	1.5	<1.0	<1.0
Ammonia (N-NH ₃)	mg/L	8.7 ³	58 ³	0.0102	0.0161
Nitrite (N-NO ₂)	mg/L	-	-	<0.10	<0.10
Nitrate (N-NO ₃)	mg/L	3.7	339	<0.50	<0.50
Total Organic Carbon (TOC)	mg/L	-	-	0.96	1.01
Dissolved Organic Carbon (DOC)	mg/L	-	-	0.88	1.02
Total Metals					
Aluminum, total (T-Al)	mg/L	-	-	0.0561	0.0614
Antimony, total (T-Sb)	mg/L	-	0.27 ⁴	<0.0010	<0.0010
Arsenic, total (T-As)	mg/L	0.0125	0.0125	0.00112	0.00121
Barium, total (T-Ba)	mg/L	-	-	0.0139	0.0142
Beryllium, total (T-Be)	mg/L	0.1	-	<0.00050	<0.00050
Boron, total (T-B)	mg/L	1.2	-	<u>2.51</u>	<u>2.66</u>
Cadmium, total (T-Cd)	mg/L	0.00012	-	0.000064	0.000068
Chromium, total (T-Cr)	mg/L	-	-	<0.00050	<0.00050
Cobalt, total (T-Co)	mg/L	-	-	0.000141	0.000162
Copper, total (T-Cu)	mg/L	0.002	0.003	0.00092	0.00109
Iron, total (T-Fe)	mg/L	-	-	0.09	0.11
Lead, total (T-Pb)	mg/L	0.002	0.14	<0.00010	<0.00010
Manganese, total (T-Mn)	mg/L	-	-	0.0128	0.0142
Molybdenum, total (T-Mo)	mg/L	-	-	0.00718	0.00756
Nickel, total (T-Ni)	mg/L	0.0083	-	<0.00050	<0.00050
Selenium, total (T-Se)	mg/L	0.002	-	<0.00050	<0.00050
Silver, total (T-Ag)	mg/L	0.0005	0.0037	<0.00010	<0.00010
Thallium, total (T-Tl)	mg/L	-	-	<0.000050	<0.000050
Uranium, total (T-U)	mg/L	-	-	0.00187	0.00203
Vanadium, total (T-V)	mg/L	0.005	-	0.00128	0.00137
Zinc, total (T-Zn)	mg/L	0.01	0.055	<0.0030	<0.0030
Hexavalent Chromium, total	mg/L	0.0015	-	<0.00150	<0.00150
Dissolved Metals					
Cadmium, dissolved (D-Cd)	mg/L	-	-	0.000054	0.000056
Copper, dissolved (D-Cu)	mg/L	-	-	<0.00050	<0.00050
Iron, dissolved (D-Fe)	mg/L	-	-	0.014	<0.010
Lead, dissolved (D-Pb)	mg/L	-	-	<0.00010	<0.00010
Manganese, dissolved (D-Mn)	mg/L	-	-	0.0104	0.0117
Nickel, dissolved (D-Ni)	mg/L	-	-	<0.00050	<0.00050
Strontium, dissolved (D-Sr)	mg/L	-	-	4.57	5.1
Vanadium, dissolved (D-V)	mg/L	-	-	0.00104	0.00114
Zinc, dissolved (D-Zn)	mg/L	-	-	0.0018	0.0018
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	<0.000010
Benzo(a)pyrene	mg/L	0.00001	-	<0.0000050	<0.0000050
Chrysene	mg/L	0.0001	-	<0.000010	<0.000010
Fluoranthene	mg/L	-	-	<0.000010	<0.000010
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	<0.000020
Pyrene	mg/L	-	-	<0.000010	<0.000010
Quinoline	mg/L	-	-	<0.000050	<0.000050
Volatile Organic Compounds (VOCs)					
Benzene	mg/L	0.11	-	-	-
Ethylbenzene	mg/L	0.25	-	-	-
Methyl-tert-butyl-ether	mg/L	5	0.44	-	-
Styrene	mg/L	-	-	-	-
Toluene	mg/L	0.215	-	-	-
Total Xylenes	mg/L	-	-	-	-
Chlorobenzene	mg/L	0.025	-	-	-
1,2-Dichlorobenzene	mg/L	0.042	-	-	-

Notes:
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 Induced guidelines for 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 for <24 hours, therefore the turbidity and TSS short-term WQGs were evaluated. Background conditions at 0.5 m depth were established using values at reference stations WQR2 collected October 10 (Table E-3).
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 E-3:
Summary of Marine Water Quality Results Received at the Time of Reporting

Parameter	Unit	Lowest Applicable Guideline ¹		Reference Station WQR1	Reference Station WQR1	Reference Station WQR1	Reference Station WQR2
				0.5 m Below Surface WQR1-0.5	2 m Below Surface WQR1-2m	2 m Above Seafloor WQR1-SF	0.5 m Below Surface WQR2-0.5
				VA25C6871-007	VA25C6871-008	VA25C6871-009	VA25C7126-003
		Long Term	Short Term	2025-10-09 11:00	2025-10-09 10:45	2025-10-09 10:15	2025-10-10 8:15
General Parameters							
pH - Field	pH units	7.0 - 8.7	-	7.53	7.56	7.37	7.60
Specific Conductivity - Field	µS/cm	-	-	38424	42640	47265	26730
Temperature - Field	°C	-	-	12.1	12.3	9.5	11.4
Salinity - Field	ppt	Narrative ²	-	24.4	27.38	30.54	22.78
Turbidity - Field	NTU	Narrative ²	Narrative ²	1.88	1.37	1.08	3.15
TSS	mg/L	Narrative ²	Narrative ²	<2.0	2.0	<2.0	6.1
Dissolved Oxygen - Field	mg/L	>=8	-	<u>6.59</u>	<u>6.21</u>	<u>5.77</u>	<u>6.55</u>
Total Hardness	mg/L	-	-	4230	4220	5290	4110
Dissolved Hardness	mg/L	-	-	4350	4290	5490	3820
Anions and Nutrients							
Sulphate	mg/L	-	-	1970	1910	2480	1650
Chloride	mg/L	-	-	14100	13600	17400	12100
Fluoride	mg/L	-	1.5	<1.0	<1.0	<1.0	<1.0
Ammonia (N-NH ₃)	mg/L	5.3-20 ³	35-135 ³	0.013	0.0106	0.0072	0.0104
Nitrite (N-NO ₂)	mg/L	-	-	<0.10	<0.10	<0.10	<0.10
Nitrate (N-NO ₃)	mg/L	3.7	339	<0.50	<0.50	0.56	<0.50
Total Organic Carbon (TOC)	mg/L	-	-	0.84	0.88	1.24	1.48
Dissolved Organic Carbon (DOC)	mg/L	-	-	0.96	0.84	0.84	1.05
Total Metals							
Aluminum, total (T-Al)	mg/L	-	-	0.0477	0.056	0.0153	0.0821
Antimony, total (T-Sb)	mg/L	-	0.27 ⁴	<0.0010	<0.0010	<0.0010	<0.0010
Arsenic, total (T-As)	mg/L	0.0125	0.0125	0.00134	0.00129	0.00158	0.0012
Barium, total (T-Ba)	mg/L	-	-	0.0141	0.0145	0.0118	0.0151
Beryllium, total (T-Be)	mg/L	0.1	-	<0.00050	<0.00050	<0.00050	<0.00050
Boron, total (T-B)	mg/L	1.2	-	<u>2.50</u>	<u>2.53</u>	<u>2.93</u>	<u>2.69</u>
Cadmium, total (T-Cd)	mg/L	0.00012	-	0.000062	0.000076	0.000088	0.000065
Chromium, total (T-Cr)	mg/L	-	-	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, total (T-Co)	mg/L	-	-	0.000143	0.000159	0.000127	0.000187
Copper, total (T-Cu)	mg/L	0.002	0.003	0.00096	0.00099	0.00073	0.00096
Iron, total (T-Fe)	mg/L	-	-	0.084	0.102	0.026	0.161
Lead, total (T-Pb)	mg/L	0.002	0.14	<0.00010	<0.00010	<0.00010	<0.00010
Manganese, total (T-Mn)	mg/L	-	-	0.0122	0.0132	0.00708	0.0185
Molybdenum, total (T-Mo)	mg/L	-	-	0.00775	0.00758	0.00914	0.00722
Nickel, total (T-Ni)	mg/L	0.0083	-	0.00066	0.00068	0.00078	<0.00050
Selenium, total (T-Se)	mg/L	0.002	-	<0.00050	<0.00050	<0.00050	<0.00050
Silver, total (T-Ag)	mg/L	0.0005	0.0037	<0.00010	<0.00010	<0.00010	<0.00010
Thallium, total (T-Tl)	mg/L	-	-	<0.000050	<0.000050	<0.000050	<0.000050
Uranium, total (T-U)	mg/L	-	-	0.00205	0.00207	0.0025	0.00196
Vanadium, total (T-V)	mg/L	0.005	-	0.00134	0.0014	0.00142	0.00144
Zinc, total (T-Zn)	mg/L	0.01	0.055	0.0031	<0.0030	0.0053	<0.0030
Hexavalent Chromium, total	mg/L	0.0015	-	<0.00150	<0.00150	<0.00150	<0.00150
Dissolved Metals							
Cadmium, dissolved (D-Cd)	mg/L	-	-	0.000063	0.000064	0.00007	0.000062
Copper, dissolved (D-Cu)	mg/L	-	-	0.00083	0.0013	0.00062	0.00074
Iron, dissolved (D-Fe)	mg/L	-	-	<0.010	<0.010	<0.010	<0.010
Lead, dissolved (D-Pb)	mg/L	-	-	<0.00010	<0.00010	<0.00010	<0.00010
Manganese, dissolved (D-Mn)	mg/L	-	-	0.0103	0.0108	0.00911	0.0159
Nickel, dissolved (D-Ni)	mg/L	-	-	<0.00050	0.00051	<0.00050	<0.00050
Strontium, dissolved (D-Sr)	mg/L	-	-	5.81	5.73	7.16	4.81
Vanadium, dissolved (D-V)	mg/L	-	-	0.00118	0.00115	0.00129	0.00106
Zinc, dissolved (D-Zn)	mg/L	-	-	0.0014	0.0016	0.0025	0.0017
Polycyclic Aromatic Hydrocarbons (PAHs)							
Acenaphthene	mg/L	0.006	-	<0.000010	<0.000010	<0.000010	<0.000010
Acridine	mg/L	-	-	<0.000010	<0.000010	<0.000010	<0.000010
Anthracene	mg/L	-	-	<0.000010	<0.000010	<0.000010	<0.000010
Benz(a)anthracene	mg/L	-	-	<0.000010	<0.000010	<0.000010	<0.000010
Benzo(a)pyrene	mg/L	0.00001	-	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Chrysene	mg/L	0.0001	-	<0.000010	<0.000010	<0.000010	<0.000010
Fluoranthene	mg/L	-	-	<0.000010	<0.000010	<0.000010	<0.000010
Fluorene	mg/L	0.012	-	<0.000010	<0.000010	<0.000010	<0.000010
1-methylnaphthalene	mg/L	0.001	-	<0.000010	<0.000010	<0.000010	<0.000010
2-methylnaphthalene	mg/L	0.001	-	<0.000010	<0.000010	<0.000010	<0.000010
Naphthalene	mg/L	0.001	-	<0.000050	<0.000050	<0.000050	<0.000050
Phenanthrene	mg/L	-	-	<0.000020	<0.000020	<0.000020	<0.000020
Pyrene	mg/L	-	-	<0.000010	<0.000010	<0.000010	<0.000010
Quinoline	mg/L	-	-	<0.000050	<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 Induced guidelines for change from background conditions arising from discharges to the aquatic environment. Salinity WQG was not evaluated. The water quality data presented in the table are marine reference stations 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 E-4:
Marine Water 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	0.014-0.0 19 ₂₀ 3,4
Station	Position in Water Column	Sample ID	Lab ID	Sampling Date		
Station IDZ-E1						
IDZ-E1	0.5 m Below Surface	IDZ-E1-0.5	VA25C6871-001	2025-10-09	0.000027	<0.0050
IDZ-E1	2 m Below Surface	IDZ-E1-2m	VA25C6871-002	2025-10-09	0.000032	<0.0050
IDZ-E1	2 m Above Seafloor	IDZ-E1-SF	VA25C6871-003	2025-10-09	<0.000020	<0.0050
Station IDZ-E2						
IDZ-E2	0.5 m Below Surface	IDZ-E2-0.5	VA25C6871-004	2025-10-09	0.000035	<0.0050
IDZ-E2	2 m Below Surface	IDZ-E2-2m	VA25C6871-005	2025-10-09	<0.000020	<0.0050
IDZ-E2	2 m Above Seafloor	IDZ-E2-SF	VA25C6871-006	2025-10-09	<0.000020	<0.0050
Station IDZ-W1						
IDZ-W1	0.5 m Below Surface	IDZ-W1-0.5	VA25C7126-001	2025-10-10	<0.000020	<0.0050
Station IDZ-W2						
IDZ-W2	0.5 m Below Surface	IDZ-W2-0.5	VA25C7126-002	2025-10-10	0.000030	<0.0050
Reference Station WQR1						
WQR1	0.5 m Below Surface	WQR1-0.5	VA25C6871-007	2025-10-09	0.000026	<0.0050
WQR1	2 m Below Surface	WQR1-2m	VA25C6871-008	2025-10-09	0.000035	<0.0050
WQR1	2 m Above Seafloor	WQR1-SF	VA25C6871-009	2025-10-09	0.000031	<0.0050
Reference Station WQR2						
WQR2	0.5 m Below Surface	WQR2-0.5	VA25C7126-003	2025-10-10	<0.000020	<0.0050

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 E-5:
Marine Water Dioxin and Furan Toxicity Equivalency Quantity (TEQ) Results Received at the Time of Reporting.

Parameter					Lower Bound PCDD/F TEQ	Upper Bound PCDD/F TEQ
Unit					pg/L	pg/L
Station	Position in Water Column	Sample ID	Lab ID	Sampling Date		
Station IDZ-E1						
IDZ-E1	0.5 m Below Surface	IDZ-E1-0.5	VA25C6873-001	2025-10-09	0	2.02
IDZ-E1	2 m Below Surface	IDZ-E1-2m	VA25C6873-002	2025-10-09	0	2.03
IDZ-E1	2 m Above Seafloor	IDZ-E1-SF	VA25C6873-003	2025-10-09	0	2.71
Station IDZ-E2						
IDZ-E2	0.5 m Below Surface	IDZ-E2-0.5	VA25C6873-004	2025-10-09	0	2.90
IDZ-E2	2 m Below Surface	IDZ-E2-2m	VA25C6873-005	2025-10-09	0	2.30
IDZ-E2	2 m Above Seafloor	IDZ-E2-SF	VA25C6873-006	2025-10-09	0	2.45
Station IDZ-W1						
IDZ-W1	0.5 m Below Surface	IDZ-W1-0.5	VA25C7127-001	2025-10-10	0.0181	2.07
Station IDZ-W2						
IDZ-W2	0.5 m Below Surface	IDZ-W2-0.5	VA25C7127-002	2025-10-10	0.0109	1.07
Reference Station WQR1						
WQR1	0.5 m Below Surface	WQR1-0.5	VA25C6873-007	2025-10-09	0	2.09
WQR1	2 m Below Surface	WQR1-2m	VA25C6873-008	2025-10-09	0	2.32
WQR1	2 m Above Seafloor	WQR1-SF	VA25C6873-009	2025-10-09	0	2.34
Reference Station WQR2						
WQR2	0.5 m Below Surface	WQR2-0.5	VA25C7127-003	2025-10-10	0.00478	1.82

Notes:

PCDD = polychlorinated dibenzodioxins (dioxins)

PCDF = polychlorinated dibenzofurans (furans)

TEQ = toxic equivalency

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

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