TECHNICAL MEMORANDUM

To:	**Ian McAllister, Ashleigh Crompton, Mike Champion, Mark Zan and Ryan Schucroft (Woodfibre LNG)**	**Date:**	**4 July 2025**
From:	**Holly Pelletier, Cheng Kuang and Patrick Mueller (Lorax)**	**Project #:**	**A633-9**
Subject:	**PE-111578 Weekly Discharge and Compliance Report #70 for June 22 – 28**		

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

This technical memorandum (Report #70) was prepared by Lorax Environmental and summarizes WDA monitoring conducted for the period of June 22 – 28. 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 #70 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 G for contact water and treated water 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 in early 2024 construction of water management infrastructure commenced. 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. 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.

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

Discharge from the East and West Sedimentation Ponds is controlled using pumps. Prior to water management upgrades that were implemented during the week of June 22 – 28, water stored in the ponds was pumped to a TSS settling system prior to discharge 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.

Flocculant-based TSS settling systems were used at the East and West Sedimentation Ponds to remove TSS from pond effluent. The first West Sedimentation Pond TSS settling system (ESC) was commissioned for use on September 25, 2024, with an 820 m^3/day installed capacity. An additional TSS settling system (W500GPM) was commissioned for use at the West Sedimentation Pond on November 28, 2024, and provided an additional 2,725 m^3/day installed capacity for clarifying water. A third TSS settling system (E500GPM) was commissioned for use at the East Sedimentation Pond on December 4, 2024, also with 2,725 m^3/day installed capacity. The E500GPM and W500GPM TSS settling systems were decommissioned during the monitoring period (June 22 – 28) and replaced by a single large TSS settling system (2700GPM) at the West Sedimentation Pond that will clarify all non-contaminated construction contact water prior to discharge at SP-W-OUT.

The fully built 2700GPM TSS settling system will have the installed capacity to clarify 15,000 m^3/day of contact water, with the same settling process that was used in the systems that have been replaced. The 2700GPM system will consist of six parallel treatment trains, each with an installed capacity of 2,450 m^3/day. The number of active trains will be matched to contact water flows. Only one train will be operated during dry conditions or when contact water flows are below approximately 2450 m^3/day, whereas at higher flows additional trains will be activated as needed to match the influent volumes. The individual treatment trains will be commissioned in stages. Commissioning and pilot testing for the first train of the 2700GPM system commenced during the monitoring period (June 22 – 28).

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

Generally warm and sunny weather conditions were observed during the June 22 – 28 monitoring period, with light precipitation recorded on June 24 (0.4 mm), June 25 (3.4 mm), June 26 (1.4 mm) and June 27 (4.8 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
2025-06-22	0	16.9	12.8	Overcast
2025-06-23	0	20.9	13.2	Mix of sun and cloud
2025-06-24	0.4	22.5	12.2	Mix of sun and cloud
2025-06-25	3.4	17.7	14.5	Overcast, Showers
2025-06-26	1.4	17.9	13.3	Mix of sun and cloud
2025-06-27	4.8	16.4	12.1	Overcast, Showers
2025-06-28	0	21.2	12.3	Mix of sun and cloud

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

From June 22 – 28, the East Sedimentation Pond received non-contaminated contact water from Area 1100 North Collection Sump and recirculated effluent from the East WWTP (Appendix A, Figure 2). Non-contaminated contact waters from the Area 4100 Collection Sump were directed to the West Sedimentation Pond, as well as recirculated effluent from the 2700GPM TSS settling system (Appendix A, Figure 3). During the monitoring period (June 22 – 28), no water from the East Sedimentation Pond was transferred to the West Sedimentation Pond (Appendix B, Table B-6). The E500GPM TSS settling system was decommissioned and effluent was not discharged to Howe Sound via station SP-E-OUT during the monitoring period.

Routine operation of the East WWTP continued during the monitoring period (June 22 – 28). Concrete contact waters, M11 Hydro Milling effluent and water from the construction water baker tank were periodically directed to the East WWTP for treatment, as well as water stored in the East Sedimentation Pond (Appendix A, Figure 2 and Figure 3). East WWTP treated effluent was discharged to the East Sedimentation Pond each day from June 22 – 28. Daily water volumes processed by the East WWTP are provided in Appendix B (Table B-6).

Commissioning and pilot testing of the 2700GPM TSS settling system commenced during the monitoring period (June 22 – 28). West Sedimentation Pond effluent was clarified through the 2700GPM system each day and was recirculated back to the West Sedimentation Pond or reclaimed and used for construction purposes (*e.g.*, road dust suppression, fill compaction, or hydrovac truck operation). The W500GPM TSS settling system was decommissioned and the West ESC (150 GPM) TSS settling system was not operational during the monitoring period. There was no discharge to Howe Sound via station SP-W-OUT during the monitoring period. From June 22 – 28, a total of 130 m^3 of clarified effluent was reclaimed for construction use. Daily clarified effluent volumes from the TSS settling systems and volumes of reclaimed water are provided in Appendix C (Table C-6).

2. Monitoring Summary

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

The following compliance and supplementary monitoring stations are currently being monitored:

- Non-contact diversion ditch outlet monitoring stations (OUT-01, OUT-02, OUT-06, and OUT-11). East Creek water was temporarily diverted to OUT-11 on September 17, 2024, and is monitored at the inlet to temporary diversion (station SW-04), therefore OUT-11 is not currently monitored.
- Creek water monitoring stations for Woodfibre, Mill and East Creek (SW-01, SW-02, SW-03, SW-04, SW-07).
- Contact water monitoring locations (SP-E-IN, E500GPM-IN, E500GPM-OUT, WWTP-E-IN, WWTP-E-OUT, SP-W-IN, 2700GPM-IN, 2700GPM-OUT, ESC-W-IN, ESC-W-OUT, W500GPM-IN and W500GPM-OUT).
- Effluent compliance stations (SP-E-OUT and SP-W-OUT).
- Howe Sound reference and IDZ monitoring stations (WQR1, WQR2, IDZ-E1, IDZ-E2, IDZ-W1, and IDZ-W2).

The influent culverts for East and West Sedimentation Ponds are not 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.

Two flocculant-based TSS settling systems are used at the West Sedimentation Pond (ESC and 2700GPM) as described in Section 1.1. The W500GPM TSS settling system was decommissioned during the monitoring period (June 22 – 28) and replaced by the larger 2700GPM TSS settling system. Influent and effluent are monitored for each system at stations ESC-W-IN, ESC-W-OUT, 2700GPM-IN and 2700GPM-OUT. The TSS settling system (E500GPM) was also decommissioned during the monitoring period (June 22 – 28) (Section 1.1). Prior to decommissioning, influent and effluent for the W500GPM and E500GPM systems were monitored at stations E500GPM-IN, E500GPM-OUT, W500GPM-IN and W500GPM-OUT. The TSS settling system stations are supplemental to the PE-111578 monitoring requirements and are monitored at the discretion of field staff.

Water quality was monitored at stations SP-E-IN, WWTP-E-IN, WWTP-E-OUT, SP-W-IN, 2700GPM-IN, and 2700GPM-OUT during the monitoring period (June 22 – 28). Sampling dates and parameters tested are summarized in Table 2.

Overall, the PE-111578 monitoring requirements that were applicable during the monitoring period (June 22 – 28) were met. The initial high frequency monitoring requirements outlined in effluent permit PE-111578 for the sedimentation pond, WWTP and IDZ stations have been met. BCER has approved the implementation of low-frequency (*i.e.*, monthly) monitoring requirements specified in PE-111578 for all parameters, except for metals, hexavalent chromium and

methylmercury which will 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 and west catchment effluent stations (SP-E-OUT and SP-W-OUT, respectively) as there was no discharge to Howe Sound during the monitoring period (June 22 – 28). Daily field parameters were not collected at the effluent station of the East WWTP (WWTP-E-OUT) on June 26 as it was not operational at the time of monitoring. Daily field parameters and a weekly analytical sample were not collected at the influent and effluent stations of the West WWTP (WWTP-W-IN and WWTP-W-OUT, respectively) as it was not operational during the monitoring period.

Table 2: Summary of PE-111578 Monitoring Samples Collected June 22 – 28.

Sampling Date	Sample	Description	Parameters Tested	Monitoring Frequency
June 22, 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
June 23, 2025	SP-E-IN	East Sedimentation Pond monitored at cell 1 of the pond	Field Parameters.	D
	WWTP-E-IN	East WWTP at the influent meter box	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	D, W_1, W_2, W_3
	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, 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 effluent meter box		
June 24, 2025	SP-E-IN	East Sedimentation Pond 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
June 25, 2025	SP-E-IN	East Sedimentation Pond 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 effluent meter box		
June 26, 2025	SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters, Total, Dissolved and Speciated Metals, Methylmercury.	D, W_3
	WWTP-E-IN	East WWTP at the influent meter box	Field Parameters.	D
	SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters, Total, Dissolved and Speciated Metals, Methylmercury.	D, W_3
	2700GPM-IN	2700GPM TSS settling system at the influent meter box	Field Parameters.	P
	2700GPM-OUT	2700GPM TSS settling system at the effluent meter box		
June 27, 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 effluent meter box		
June 28, 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 effluent meter box		

Notes: Monitoring frequency requirements under PE-111578 are indicated as follows:
D – daily monitoring of field parameters at WWTP and sedimentation pond influent and effluent stations.
M – monthly monitoring for all parameters at WWTP, sedimentation pond and receiving environment stations.
W_1 – initial high frequency monitoring for physical parameters at WWTP and sedimentation pond influent and effluent stations.
W_2 – initial high frequency monitoring for all parameters at WWTP and sedimentation pond influent and effluent stations.
W_3 – high frequency 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 Screening and Reporting Overview

Water quality and flow monitoring results are screened against field quality control (QC) criteria, benchmark values, operational minimum discharge objectives (MDOs) that the WWTPs are currently being operated to meet, PE-111578 discharge limits, as well as Canadian, Federal and BC water quality guidelines (WQGs). All water quality data are recorded in the Woodfibre LNG environmental monitoring database. However, for brevity, a sub-set of the results are presented in the weekly report appendices. Results are reported for parameters with a freshwater, estuarine or marine water quality guideline for the protection of aquatic life, parameters with a discharge limit, parameters of potential concern (*i.e.,* dioxins and furans) as well as other parameters that are relevant for water quality interpretation.

Canadian, Federal and BC WQGs are not specified for dioxins and furans. The general term "dioxins and furans" refers to 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 methylmercury WQG to support the interpretation of total mercury and methylmercury results.

3.2 Summary of Reported Results

Field measurements and analytical results included in this weekly report (Report #70) are listed below in Table 3. Testing for methylmercury, dioxins, furans and toxicity may require four weeks

or longer to complete. Analytical results not reported will be included in future weekly reports. Reporting of results is pending for the following samples and parameters:

- IDZ-E1, IDZ-E2, IDZ-W1, IDZ-W2, WQR1, WQR2 collected March 25 at 0.5 m below surface (chronic toxicity)
- IDZ-E1, IDZ-E2, IDZ-W1, IDZ-W2, WQR1, and WQR2 collected May 27 at 0.5 m below surface (chronic toxicity)
- SP-E-IN, WWTP-E-IN, WWTP-E-OUT, SP-W-IN, and W500GPM-OUT collected June 3 (dioxins and furans)
- SP-E-IN, WWTP-E-IN, and WWTP-E-OUT collected June 9 (dioxins and furans)
- SP-W-IN and W500GPM-OUT collected June 12 (dioxins and furans)
- SW-02, SW-03 and SW-07 collected June 17 (methylmercury, dioxins and furans)
- IDZ-W1, IDZ-W2 and WQR2 collected June 17 (methylmercury, dioxins and furans)
- SP-E-IN, WWTP-E-IN, WWTP-E-OUT, E500GPM-OUT, SP-W-IN and W500GPM-OUT collected June 19 (dioxins and furans)
- E500GPM-OUT and W500GPM-OUT collected June 19 (acute toxicity)
- WWTP-E-IN, WWTP-E-OUT, 2700GPM-IN, and 2700GPM-OUT collected June 23 (methylmercury, dioxins and furans)
- SP-E-IN and SP-W-IN collected June 26 (all analytical parameters)

Table 3: Summary of Analytical Results Included in Weekly Discharge and Compliance Report #70.

Sample	Description	Sampling Date	Parameters Reported
SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	May 19, 2025	Dioxins and Furans.
SP-W-OUT	West Sedimentation Pond clarified effluent discharge to Howe Sound, collected at sampling port		
WWTP-E-IN	East WWTP at the influent meter box	May 30, 2025	Dioxins and Furans.
WWTP-E-OUT	East WWTP at the effluent meter box		
SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	June 1, 2025	Dioxins and Furans.
SP-W-OUT	West Sedimentation Pond clarified effluent discharge to Howe Sound, collected at sampling port		
OUT-01	Non-contact water diversion ditch outlet		Methylmercury.
OUT-02	Non-contact water diversion ditch outlet	June 2, 2025	Methylmercury.
SW-01	Lower Reach of Woodfibre Creek (near the mouth)	June 6, 2025	Methylmercury, Dioxins and Furans.
SW-04	Lower Reach of East Creek (near the outlet to the outfall culvert)		
E500GPM-OUT	East Sedimentation Pond 500 GPM TSS settling system at the effluent meter box	June 16, 2025	Methylmercury.
SW-02	Lower Reach of Mill Creek (upstream of the third bridge)	June 17, 2025	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, and VOCs.
SW-03	Mill Creek Estuary		
SW-07	Upstream Mill Creek (at the diversion inlet)		
IDZ-W1-0.5	Howe Sound IDZ station W1; 0.5 m below surface		Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, and VOCs.
IDZ-W1-2m	Howe Sound IDZ station W1; 2 m below surface		
IDZ-W1-SF	Howe Sound IDZ station W1; 2 m above the seafloor		
IDZ-W2-0.5	Howe Sound IDZ station W2; 0.5 m below surface		
IDZ-W2-2m	Howe Sound IDZ station W2; 2 m below surface		
IDZ-W2-SF	Howe Sound IDZ station W2; 2 m above the seafloor		
WQR2-0.5	Reference site 2; 0.5 m below surface		
WQR2-2m	Reference site 2; 2 m below surface		
WQR2-SF	Reference site 2; 2 m above the seafloor		
IDZ-E1-0.5	Howe Sound IDZ station E1; 0.5 m below surface	June 18, 2025	Field and Physical Parameters.
IDZ-E1-2m	Howe Sound IDZ station E1; 2 m below surface		
IDZ-E1-SF	Howe Sound IDZ station E1; 2 m above the seafloor		
IDZ-E2-0.5	Howe Sound IDZ station E2; 0.5 m below surface		
IDZ-E2-2m	Howe Sound IDZ station E2; 2 m below surface		
IDZ-E2-SF	Howe Sound IDZ station E2; 2 m above the seafloor		
SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	June 19, 2025	Methylmercury.
E500GPM-OUT	East Sedimentation Pond 500 GPM TSS settling system at the effluent meter box		
SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond		
W500GPM-OUT	West 500 GPM TSS settling system at the effluent meter box		
WWTP-E-IN	East WWTP at the influent meter box	June 23, 2025	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, and VOCs.
WWTP-E-OUT	East WWTP at the effluent meter box		
2700GPM-IN	2700 GPM TSS settling system at the influent meter box		
2700GPM-OUT	2700 GPM TSS settling system at the effluent meter box		

3.3 East Catchment

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

During the monitoring period (June 22 – 28), the TSS settling system (E500GPM) was decommissioned (Section 1.1 and Section 1.2). The east catchment did not discharge during the monitoring period. East WWTP treated effluent volumes and discharge volumes from the east catchment are listed in Appendix B, Table B-6.

Field measurements were collected June 22 – 28 at multiple influent and effluent locations, as outlined in Section 2, and are tabulated in Appendix B, Table B-5. Analytical samples collected on June 23 (stations WWTP-E-IN and WWTP-E-OUT) were available at the time of reporting. Screening results for east catchment contact water quality are summarized in Table B-1 and Table B-2 of Appendix B.

Dissolved oxygen was below the lower limit of the MDO in East WWTP effluent (WWTP-E-OUT) collected June 22 – 28 except on June 23 (Appendix B, Table B-3). The depletion of dissolved oxygen was also observed in contact water during dry conditions in 2024 and is speculated to be induced by warm temperatures and limited freshwater inputs (*i.e.*, from rain) to the contact water management system during dry conditions. East WWTP treated effluent was directed to the East Sedimentation Pond and there was no discharge from the pond to Howe Sound during monitoring period (June 22 – 28).

Methylmercury results were available for clarified effluent from the E500GPM system (E500GPM-OUT) collected June 16 and June 19 and for East Sedimentation Pond influent (SP-E-IN) collected June 19 (as discussed in Report #69). Methylmercury ranged from 0.000209 to 0.000224 µg/L, above the WQG (0.0001 µg/L) in the E500GPM-OUT samples collected June 16 and June 19 (Appendix B, Table B-3). Clarified effluent from the E500GPM system was directed to the East Sedimentation Pond and there was no discharge from the pond to Howe Sound on June 16 nor on June 19. Total mercury concentrations are also listed in Appendix B, Table B-3 and are above the WQG. Mercury parameters are tracked in Table 4.

Dioxin and furan results were reported for East WWTP influent and effluent (WWTP-E-IN and WWTP-E-OUT, respectively) collected May 30 (as discussed in Report #66). The lower and upper bound PCDD/F TEQ concentrations in effluent discharged from the East WWTP (WWTP-E-OUT) on May 30 were 0.279 pg/L and 0.660 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 TSS settling systems (ESC and W500GPM) and West WWTP monitoring stations, and the authorized discharge location are discussed in this section. Results for sedimentation pond and TSS settling system influent and effluent stations are screened against PE-111578 discharge limits. Parameters without a discharge limit are screened against Canadian, Federal and BC WQGs for the protection of marine water aquatic life. The screened water quality results for analytical samples and field parameters are presented in Appendix C. Operation of the West WWTP is suspended (refer to Section 1.1) and monitoring results are therefore not available for the stations at this facility. Exceedances of PE-111578 discharge limits and WQGs in samples of effluent discharged to Howe Sound and results received for methylmercury, dioxins and furans are summarized below.

During the monitoring period (June 22 – 28), the W500GPM TSS settling system was decommissioned and commissioning and pilot testing of the larger replacement TSS settling system (2700GPM) commenced (Section 1.1 and Section 1.2). West Sedimentation Pond effluent was directed to the 2700GPM TSS settling system each day during the monitoring period, and clarified effluent was either recirculated to the pond or reclaimed and used for construction purposes (refer to Section 1.2). The smaller West ESC (150 GPM) TSS settling system was not operational. There were no discharges to Howe Sound from the west catchment discharge location (SP-W-OUT) during the monitoring period. Daily clarified effluent and discharge volumes from the west catchment are summarized in Appendix C, Table C-6.

Field measurements were collected June 22 – 28 at multiple influent and effluent locations, as outlined in Section 2, and are tabulated in Appendix C, Table C-5. Analytical samples collected June 23 (stations 2700GPM-IN and 2700GPM-OUT) were available at the time of reporting. Screening results for west catchment contact water quality are tabulated in Table C-1 and Table C-2 of Appendix C.

During the monitoring period (June 22 – 28), field measurements and analytical results for samples collected at station 2700GPM-OUT met PE-111578 discharge limits and WQGs.

Methylmercury results were available for West Sedimentation Pond influent (SP-W-IN) and W500GPM TSS settling system effluent (W500GPM-OUT) collected June 19 (as discussed in

Report #69). Methylmercury was 0.000819 µg/L in the W500GPM-OUT sample collected June 19 (Appendix C, Table C-3), which is above the WQG (0.0001 µg/L). Clarified effluent from the W500GPM system was recirculated to the West Sedimentation Pond and there was no discharge from the pond to Howe Sound on June 19. The total mercury concentration is also listed in Appendix C, Table C-3 and was above the WQG.

Dioxin and furan results were reported for West Sedimentation Pond influent and effluent (SP-W-IN and SP-W-OUT, respectively) collected May 19 and June 1 (as discussed in Reports #65 and #67, respectively). The lower and upper bound PCDD/F TEQ concentrations in effluent discharged at SP-W-OUT on May 19 and June 1 ranged from 0.00269 to 0.230 pg/L and 0.623 to 0.715 pg/L, respectively. Results are tabulated in Appendix C, Table C-4.

3.5 Non-Contact Water Diversion Ditch Outlets

Non-contact water diversion ditch samples are screened against Canadian, Federal and BC WQGs for the protection of freshwater aquatic life. The analytical results, field parameters, and WQGs are summarized in Appendix D.

East Creek was temporarily diverted to OUT-11 on September 17, 2024, to facilitate replacement of the OUT-12 culvert through which East Creek previously discharged. Only East Creek water is flowing through the OUT-11 culvert. East Creek is monitored at freshwater receiving environment station SW-04 and station OUT-11 is not monitored while the diversion is in place.

Methylmercury results were available at the time of reporting for the non-contact water diversion ditch outlet samples collected at station OUT-01 on June 1 and OUT-02 on June 2 (as discussed in Report #67). Methylmercury results met the WQG and the corresponding total mercury results also met WQGs. Results are tabulated in Appendix D, Table D-1.

3.6 Freshwater and Estuarine Water Receiving Environment

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

Analytical results were available at the time of reporting for freshwater and estuarine water samples collected at the lower freshwater reach of Mill Creek (station SW-02), the Mill Creek estuary (SW-03) and upstream on Mill Creek (SW-07) on June 17 (as discussed in Report #69).

Parameter concentrations met WQGs except field pH and total aluminum in the samples collected at the Mill Creek estuary (station SW-03) and at the lower freshwater reach of Mill Creek (station SW-02), respectively. Field pH in the estuary at station SW-03 (pH 6.5) was below the lower range of the WQG (pH 7.0) on June 17. Total aluminum was above the long-term freshwater WQG at SW-02 (0.0493 mg/L) on June 17.

The observed field pH and total aluminum concentrations at Mill Creek downstream stations (SW-02 and SW-03) are within ranges observed in the pre-construction baseline monitoring program for the freshwater and estuarine water receiving environment stations. The observed field pH and total aluminum concentrations are considered to represent background conditions in all samples and are not flagged as potential project-influenced exceedances of the WQGs.

Methylmercury results were available at the time of reporting for freshwater samples collected near the mouth of Woodfibre Creek and East Creek (stations SW-01 and SW-04, respectively) on June 6 (as discussed in Report #67). The methylmercury concentrations met the WQG (0.0001 µg/L) and ranged from <0.000020 to 0.000026 µg/L. The corresponding total mercury results also met WQGs. Results are tabulated in Appendix E, Table E-2.

Dioxin and furan results were reported for freshwater samples collected June 6 (stations SW-01 and SW-04) (as discussed in Report #67). The lower PCDD/F TEQ concentrations measured in these samples ranged were 0 pg/L and the upper bound PCDD/F TEQ concentrations ranged from 1.58 to 2.00 pg/L. The lower and upper bound PCDD/F TEQ concentrations were within the concentration ranges observed in the baseline monitoring program. Results are tabulated in Appendix E, Table E-3.

3.7 Marine Water Receiving Environment

Marine water receiving environment samples are screened against Canadian, Federal and BC WQGs for the protection of marine water aquatic life. Parameter concentrations above a WQG value, but within the range of values observed in the baseline monitoring program or reference stations are considered to represent the natural condition of the water and not flagged as a possible indicator of project influence. Similarly, WQG exceedances at marine reference stations are considered to represent background conditions that are not influenced by the project. It is expected that samples collected within the IDZ (*i.e.,* mixing zone) defined in PE-111578 for the authorized discharge locations may have parameter concentrations above baseline or background (*i.e.,* reference station) concentrations due to project influence. The analytical results, field parameters and WQGs are summarized in Appendix G.

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 June 17

at IDZ-W1, IDZ-W2, and marine reference station WQR2 as well as on June 18 at IDZ-E1 and IDZ-E2 (as discussed in Report #69).

Parameter concentrations met WQGs except field pH, dissolved oxygen, total boron and total copper in some samples (Appendix G; Tables E-1 through Table E-3). Field pH was below the lower range of the WQG (pH 7.0) in the sample collected at 0.5 m below the surface at IDZ-W1 on June 17 (pH 6.54). In samples collected at 2 m above the seafloor at IDZ-W1, IDZ-W2 and marine reference station WQR2 on June 17 and at station IDZ-E1 on June 18, dissolved oxygen ranged from 7.30 to 7.97 mg/L and was below the lower limit of the WQG (8 mg/L). In samples collected at 2 m above the seafloor at IDZ-W1, IDZ-W2 and marine reference station WQR2 and at 2 m below the surface at IDZ-W1 on June 17, total boron was above the WQG (1.2 mg/L) and ranged from 2.61 to 3.55 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 field pH values and dissolved oxygen and total boron concentrations observed at the IDZ monitoring stations are within concentrations that have been observed in the pre-construction baseline monitoring program or within background ranges observed at marine reference stations and are therefore not attributed to project influence.

Total copper was above the short- and long-term WQGs (0.002 and 0.003 mg/L, respectively) in the sample collected at 2 m below the surface at marine reference station WQR2 (0.00404 m/L) on June 17. The samples collected at marine reference stations represent background marine water quality and are not flagged as potential project-influenced exceedances of the WQGs.

4. 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 (June 22 – 28, Report #70)		
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 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.
Pending Data	Analytical results not reported.	Analytical results for contact water samples collected June 26 were not included with Report #70. Methylmercury, dioxins and furans results for treated water samples collected June 23 were not included with Report #70. The pending results will be included in future weekly reports when available. This item remains open.
Data Quality	Lab reanalysis	Total copper was above the short- and long-term WQGs (0.002 and 0.003 mg/L, respectively) in the sample collected at 2 m below the surface at marine reference station WQR2 (0.00404 m/L) on June 17. Lab reanalysis is underway to confirm the reported result. This item remains open.
Ongoing Items from Previous Weekly Reports		
Report #57: Pending Data	Analytical results not reported.	Chronic toxicity results for marine receiving environment samples collected March 25 were not included with Report #70. The pending results will be included in future weekly reports when available. This item remains open.
Report #62: WWTP Performance Evaluation	Total copper above the MDO.	This item was first noted in Report #46 (January 8 sample). From January 8 onwards the WWTP-E-OUT total copper concentrations were 0.00809, 0.00595, 0.00895, 0.00518, 0.00542, 0.00525, 0.00450, 0.00734, 0.00464, 0.00462, and 0.00573 mg/L in samples collected at WWTP-E-OUT on January 8, 14, 24, 28, February 24, March 8, 17, April 24, May 10, June 3, and June 9, respectively, and ranged from 0.00613 to 0.0108 mg/L in four replicate samples collected on February 15. The HSMT metal removal media was replaced on June 5 and the fresh media was expected to improve copper removal; however, the total copper result for WWTP-E-OUT collected June 9 (0.00573 mg/L) following the media replacement was above the MDO. Follow-up samples collected June 19 and 23 returned total copper concentrations of 0.00264 and 0.00263 mg/L, respectively. The treatment performance for total copper continues to be reviewed. This item remains open.
Report #65: Pending Data	Analytical results not reported.	Dioxins and furans results for contact water and treated water samples collected May 19 are discussed in Section 3.4 of Report #70. This item is closed.
Report #66: Pending Data	Analytical results not reported.	Dioxins and furans results for contact water and treated water samples collected May 30 are discussed in Section 3.3 of Report #70. Chronic toxicity results for receiving environment samples collected May 27 were not included with Report #70. The pending results will be included in future weekly reports when available. This item remains open.
Report #67: WQG Evaluation	Total mercury and methylmercury above WQG.	Report #62: methylmercury and total mercury measured at station SP-E-OUT on April 24 (0.000264 and 0.00851 µg/L, respectively) were 2.6 times greater than the calculated WQG. Report #65: methylmercury (0.000149 and 0.000158 µg/L) and total mercury (0.00821 and 0.00825 µg/L) measured in two replicate samples at station SP-W-OUT on May 19 were 1.5 to 1.6 times greater than the WQGs. Report#66: methylmercury results for marine receiving environment samples collected at 2 m below surface and at 2 m above the seafloor at IDZ-W1 on May 7 were retested by the laboratory and the original results (0.000101 and 0.000092 ug/L, respectively) were determined to be incorrect. Revised results are <0.000020 and 0.000030 ug/L, respectively, below the WQG (0.0001 µg/L). Report #67: Methylmercury and total mercury measured at non-contact water diversion ditch station OUT-02 on May 19 (0.000213 and 0.00319 µg/L, respectively) were above the WQGs and similar to or below maximum values (0.000156 and <0.010 µg/L, respectively) for diversion ditch samples, suggesting there may be background influence. The sample has been retested and the methylmercury concentration was confirmed. A review of site activities at the time of sampling indicates it is unlikely there was project influence along the ditch line. In general, there has been an increased incidence of total mercury and methylmercury exceedances in site contact waters since late April. During this time the site conditions have been generally drier than through the winter months. Possible project related sources have been evaluated, and a point source of mercury has not been identified. There have been instances of the lab reporting falsely elevated receiving environment results (Report #66, May 7 marine water samples, see above entry), further review of the test method with the lab has been completed and no changes have been made in the test method; however, a further investigation into erroneous lab results concluded that sample contamination occurred during the preparation stage and corrective actions have been implemented. Baseline monitoring of diversion ditch water suggests there may be non-project influences on the concentration of mercury in diversion ditch waters. This item remains open.
Report #67: Pending Data	Analytical results not reported.	Methylmercury results for non-contact diversion ditch samples collected June 1 and 2 and for receiving environment samples collected June 6 are discussed in Sections 3.5 and 3.6, respectively, of Report #70. Dioxins and furans results for contact water and treated water samples collected June 1 and for receiving environment samples collected June 6 are discussed in Sections 3.4 and 3.6, respectively, of Report #70. Dioxins and furans results for contact water and treated water samples collected June 3 were not included with Report #70. The pending results will be included in future weekly reports when available. This item remains open.
Report #68: Pending Data	Analytical results not reported.	Dioxins and furans results for contact water and treated water samples collected June 9 and 12 were not included with Report #70. The pending results will be included in future weekly reports when available. This item remains open.
Report #69: Pending Data	Analytical results not reported.	Analytical results and field parameters for receiving environment samples collected June 17 and 18 are discussed in Sections 3.6 and 3.7 of Report #70. Methylmercury results for contact water and treated water samples collected June 16 and 19 are discussed in Sections 3.3 and 3.4 of Report #70. Methylmercury, dioxin and furans results for receiving environment samples collected June 17 and 18 were not included with Report #70. Dioxins and furans results for contact water and treated water samples collected June 19 were not included with Report #70. Acute toxicity results for clarified effluent from the E500GPM and W500GPM TSS settling systems were not included with Report #70. Toxicity samples were collected from the E500GPM and W500GPM stations as proxies for the SP-E-OUT and SP-W-OUT stations, respectively, to meet the quarterly toxicity monitoring requirement for sedimentation pond effluent. The pending results will be included in future weekly reports when available. This item remains open.

Notes:

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

5. Closure

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

Regards,

LORAX ENVIRONMENTAL SERVICES LTD.

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

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Appendix A: Figures and Site Images

LEGEND

- Freshwater Monitoring Station
- Marine Water Monitoring Station
- Clean Water Diversion 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

DATE SAVED:	Jul 02, 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: Woodfibre LNG

LORAX ENVIRONMENTAL

PROJECT:

Woodfibre LNG Project Construction Phase

TITLE: Water Management Facilities and Established PE-111578 Monitoring Stations (June 28, 2025)

PROJECT #: A633-7

FIGURE: 1

P:\@202506\Woodfibre\Drafting Figures\APRX\WLNG Weekly Report Figure\WLNG Weekly Report.aprx Figure 1 - Monitoring and Compliance Locations

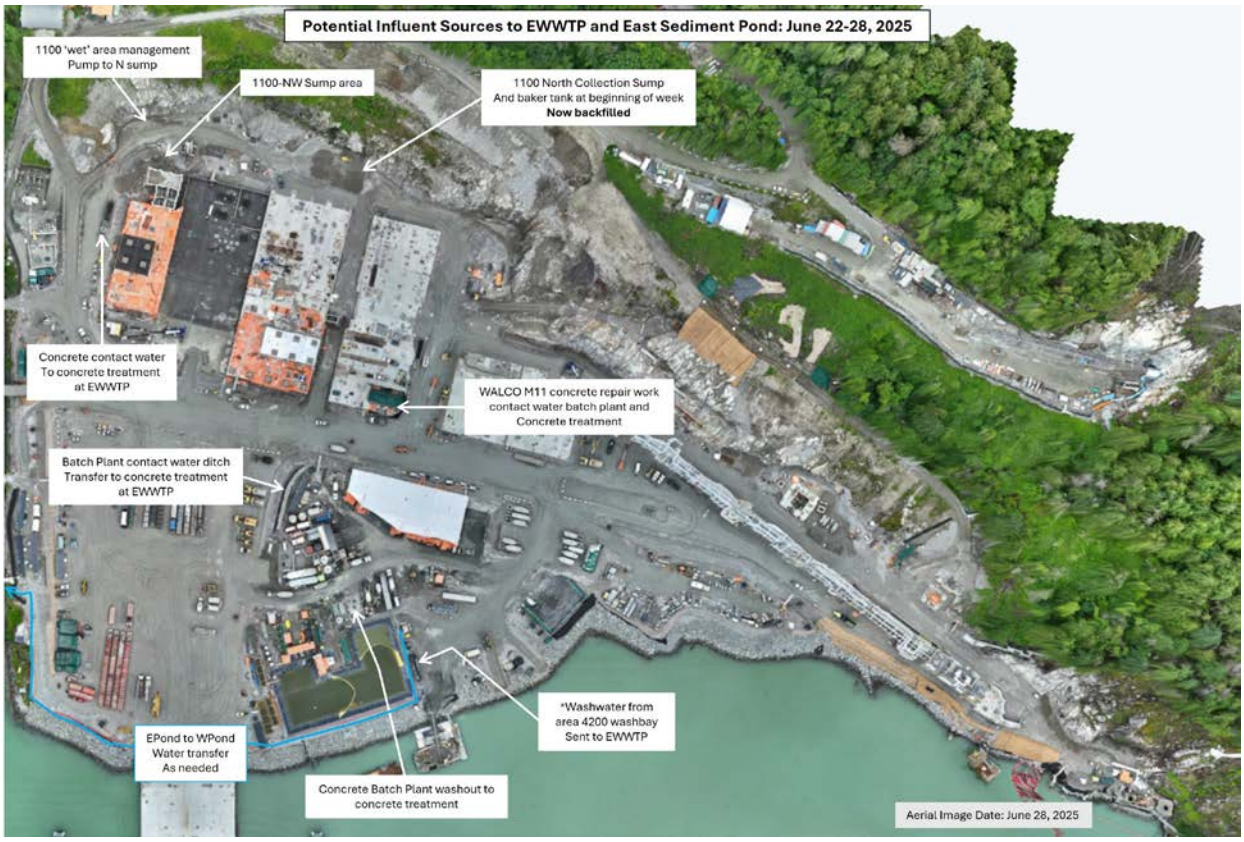

Figure 2: East Catchment contact water management facilities (June 22 – 28).

Figure 3: West Catchment contact water management facilities (June 22 – 28).

Figure 4: Aerial view of the East Sedimentation Pond (June 28, 2025). The East WWTP is located on the left side and the E500GPM TSS settling system is situated along the bottom edge of the pond. Algal mats are visible in the central cell of the pond.

Figure 5: Aerial view of the West Sedimentation Pond (June 28, 2025). The TSS settling systems are located to the left (W500GPM) and right (ESC) of the pond. Algal mats are visible in the centre and final cells of the pond.

Appendix B: East Catchment Monitoring Results

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

Parameter	Unit	Lowest Applicable Guideline [1]		PE-111578 Discharge Limit	Station WWTP-E-IN Influent WWTP-E-IN VA25B5143-003 2025-06-23 9:35
		Long Term	Short Term		
General Parameters					
pH - Field	pH units	- [2]	-	5.5 - 9.0	7.0
Specific Conductivity - Field	µS/cm	-	-	-	1861
Temperature - Field	°C	-	-	-	18.3
Salinity - Field	ppt	-	-	-	0.95
Turbidity - Field	NTU	-	-	-	6.59
TSS	mg/L	-	-	25 or 75 [6]	5.8
Dissolved Oxygen - Field	mg/L	≥8	-	-	9.51
Anions and Nutrients					
Sulphate	mg/L	-	-	-	713
Chloride	mg/L	-	-	-	22.2
Fluoride	mg/L	-	1.5	-	0.334
Ammonia ($N\text{-}NH_3$)	mg/L	14 [3]	92 [3]	-	<0.0050
Nitrite ($N\text{-}NO_2$)	mg/L	-	-	-	<0.0100
Nitrate ($N\text{-}NO_3$)	mg/L	3.7	339	-	<0.0500
Total Metals					
Aluminum, total (T-Al)	mg/L	-	-	-	0.479
Antimony, total (T-Sb)	mg/L	-	0.27 [4]	-	0.0015
Arsenic, total (T-As)	mg/L	0.0125	0.0125	-	0.003
Barium, total (T-Ba)	mg/L	-	-	-	0.0173
Beryllium, total (T-Be)	mg/L	0.1	-	-	<0.000040
Boron, total (T-B)	mg/L	1.2	-	-	0.186
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000550
Chromium, total (T-Cr)	mg/L	-	-	-	0.00426
Cobalt, total (T-Co)	mg/L	-	-	-	<0.00020
Copper, total (T-Cu)	mg/L	- [2]	- [2]	0.0043	0.00311
Iron, total (T-Fe)	mg/L	-	-	-	0.311
Lead, total (T-Pb)	mg/L	- [2]	- [2]	0.0035	0.000475
Manganese, total (T-Mn)	mg/L	-	-	-	0.017
Mercury, total (T-Hg)	mg/L	0.000016 [5]	-	-	***0.0000761***
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.163
Nickel, total (T-Ni)	mg/L	0.0083	-	-	<0.00100
Selenium, total (T-Se)	mg/L	0.002	-	-	0.000931
Silver, total (T-Ag)	mg/L	0.0005	0.0037	-	<0.000020
Thallium, total (T-Tl)	mg/L	-	-	-	0.000048
Uranium, total (T-U)	mg/L	-	-	-	0.0277
Vanadium, total (T-V)	mg/L	- [2]	-	0.0081	0.00558
Zinc, total (T-Zn)	mg/L	- [2]	- [2]	0.0133	0.0176
Hexavalent Chromium, total	mg/L	0.0015	-	-	0.00063
Dissolved Metals					
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000450
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00207
Iron, dissolved (D-Fe)	mg/L	-	-	-	0.042
Lead, dissolved (D-Pb)	mg/L	-	-	-	<0.000050
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.0124
Nickel, dissolved (D-Ni)	mg/L	-	-	-	0.00383
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.319
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00505
Zinc, dissolved (D-Zn)	mg/L	-	-	-	0.0141
Polycyclic Aromatic Hydrocarbons (PAHs)					
Acenaphthene	mg/L	0.006	-	-	<0.000010
Acridine	mg/L	-	-	-	<0.000010
Anthracene	mg/L	-	-	-	<0.000010
Benz(a)anthracene	mg/L	-	-	-	<0.000010
Benzo(a)pyrene	mg/L	0.00001	-	-	<0.0000050
Chrysene	mg/L	0.0001	-	-	<0.000010
Fluoranthene	mg/L	-	-	-	<0.000010
Fluorene	mg/L	0.012	-	-	<0.000010
1-methylnaphthalene	mg/L	0.001	-	-	<0.000010
2-methylnaphthalene	mg/L	0.001	-	-	<0.000010
Naphthalene	mg/L	0.001	-	-	<0.000050
Phenanthrene	mg/L	-	-	-	<0.000020
Pyrene	mg/L	-	-	-	<0.000010
Quinoline	mg/L	-	-	-	<0.000050
Volatile Organic Compounds (VOCs)					
Benzene	mg/L	0.11	-	-	<0.00050
Ethylbenzene	mg/L	0.25	-	-	<0.00050
Methyl-tert-butyl-ether	mg/L	5	0.44	-	<0.00050
Styrene	mg/L	-	-	-	<0.00050
Toluene	mg/L	0.215	-	-	<0.00040
Total Xylenes	mg/L	-	-	-	<0.00050
Chlorobenzene	mg/L	0.025	-	-	<0.00050
1,2-Dichlorobenzene	mg/L	0.042	-	-	<0.00050

Notes:
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.
Results in orange text exceed the PE-111578 East Sedimentation Pond Discharge Limit.
The East Catchment did not discharge during the monitoring period (June 22 – 28).
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] The WQG was not evaluated for parameters with discharge limits.
[3] The BC WQG for total ammonia is salinity, pH and temperature dependent; see Tables 27E and 27F in BC WQG guidance document.
[4] The working BC WQG for trivalent antimony [SB(III)] is 0.27 mg/L and is applied to total antimony results.
[5] When MeHg ≤0.5% of total Hg, the BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.
[6] The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for each day of Wet Conditions.

Table B-2: East Catchment Effluent Analytical Results Received at the Time of Reporting.

Parameter	Unit	Lowest Applicable Guideline [1]		PE-111578 Discharge Limit	Station WWTP-E-OUT Effluent WWTP-E-OUT VA25B5143-004
		Long Term	Short Term		2025-06-23 14:55
General Parameters					
pH - Field	pH units	- [2]	-	5.5 - 9.0	7.5
Specific Conductivity - Field	µS/cm	-	-	-	1370
Temperature - Field	°C	-	-	-	20.3
Salinity - Field	ppt	-	-	-	0.69
Turbidity - Field	NTU	-	-	-	5.73
TSS	mg/L	-	-	25 or 75 [6]	3.6
Dissolved Oxygen - Field	mg/L	≥8	-	-	8.41
Anions and Nutrients					
Sulphate	mg/L	-	-	-	761
Chloride	mg/L	-	-	-	21.1
Fluoride	mg/L	-	1.5	-	0.276
Ammonia (N-NH_3)	mg/L	3.7 [3]	25 [3]	-	0.0143
Nitrite (N-NO_2)	mg/L	-	-	-	<0.0100
Nitrate (N-NO_3)	mg/L	3.7	339	-	<0.0500
Total Metals					
Aluminum, total (T-Al)	mg/L	-	-	-	0.248
Antimony, total (T-Sb)	mg/L	-	0.27 [4]	-	0.00149
Arsenic, total (T-As)	mg/L	0.0125	0.0125	-	0.00259
Barium, total (T-Ba)	mg/L	-	-	-	0.00576
Beryllium, total (T-Be)	mg/L	0.1	-	-	<0.000040
Boron, total (T-B)	mg/L	1.2	-	-	0.178
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000450
Chromium, total (T-Cr)	mg/L	-	-	-	0.00266
Cobalt, total (T-Co)	mg/L	-	-	-	<0.00020
Copper, total (T-Cu)	mg/L	- [2]	- [2]	0.0043	0.00263
Iron, total (T-Fe)	mg/L	-	-	-	0.101
Lead, total (T-Pb)	mg/L	- [2]	- [2]	0.0035	0.000173
Manganese, total (T-Mn)	mg/L	-	-	-	0.007
Mercury, total (T-Hg)	mg/L	0.000016 [5]	-	-	***0.0000576***
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.183
Nickel, total (T-Ni)	mg/L	0.0083	-	-	<0.00100
Selenium, total (T-Se)	mg/L	0.002	-	-	0.00097
Silver, total (T-Ag)	mg/L	0.0005	0.0037	-	<0.000020
Thallium, total (T-Tl)	mg/L	-	-	-	0.000041
Uranium, total (T-U)	mg/L	-	-	-	0.0125
Vanadium, total (T-V)	mg/L	- [2]	-	0.0081	0.00604
Zinc, total (T-Zn)	mg/L	- [2]	- [2]	0.0133	<0.0060
Hexavalent Chromium, total	mg/L	0.0015	-	-	0.00060
Dissolved Metals					
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000450
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00281
Iron, dissolved (D-Fe)	mg/L	-	-	-	<0.020
Lead, dissolved (D-Pb)	mg/L	-	-	-	<0.000100
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.00601
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00100
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.188
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00603
Zinc, dissolved (D-Zn)	mg/L	-	-	-	0.0064
Polycyclic Aromatic Hydrocarbons (PAHs)					
Acenaphthene	mg/L	0.006	-	-	<0.000010
Acridine	mg/L	-	-	-	<0.000010
Anthracene	mg/L	-	-	-	<0.000010
Benz(a)anthracene	mg/L	-	-	-	<0.000010
Benzo(a)pyrene	mg/L	0.00001	-	-	<0.0000050
Chrysene	mg/L	0.0001	-	-	<0.000010
Fluoranthene	mg/L	-	-	-	<0.000010
Fluorene	mg/L	0.012	-	-	<0.000010
1-methylnaphthalene	mg/L	0.001	-	-	<0.000010
2-methylnaphthalene	mg/L	0.001	-	-	<0.000010
Naphthalene	mg/L	0.001	-	-	<0.000050
Phenanthrene	mg/L	-	-	-	<0.000020
Pyrene	mg/L	-	-	-	<0.000010
Quinoline	mg/L	-	-	-	<0.000050
Volatile Organic Compounds (VOCs)					
Benzene	mg/L	0.11	-	-	<0.00050
Ethylbenzene	mg/L	0.25	-	-	<0.00050
Methyl-tert-butyl-ether	mg/L	5	0.44	-	<0.00050
Styrene	mg/L	-	-	-	<0.00050
Toluene	mg/L	0.215	-	-	<0.00040
Total Xylenes	mg/L	-	-	-	<0.00050
Chlorobenzene	mg/L	0.025	-	-	<0.00050
1,2-Dichlorobenzene	mg/L	0.042	-	-	<0.00050

Notes:
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.
Results in orange text exceed the PE-111578 East Sedimentation Pond Discharge Limit.
The East Catchment did not discharge during the monitoring period (June 22 – 28).
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] The WQG was not evaluated for parameters with discharge limits.
[3] The BC WQG for total ammonia is salinity, pH and temperature dependent; see Tables 27E and 27F in BC WQG guidance document.
[4] The working BC WQG for trivalent antimony [SB(III)] is 0.27 mg/L and is applied to total antimony results.
[5] When MeHg ≤0.5% of total Hg, the BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.
[6] The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for each day of Wet Conditions.

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]	0.0011 – 0.0027 [3,4]
Station	**Water Type**	**Sample ID**	**Lab ID**	**Sampling Date**		
Influent						
SP-E-IN	Influent	SP-E-IN	VA25B4818-001	2025-06-19	***0.00220***	***0.0601***
Effluent						
E500GPM-OUT	Effluent	E500GPM-OUT	VA25B366-001	2025-06-16	***0.00209*** [5]	***0.0227*** [5]
E500GPM-OUT	Effluent	E500GPM-OUT	VA25B4818-002	2025-06-19	***0.00224*** [5]	***0.0412*** [5]
E500GPM-OUT	Effluent	E500GPM-OUT-Dup	VA25B4818-004	2025-06-19	***0.00214*** [5]	***0.0396*** [5]

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.
[5] E500GPM clarified effluent is directed to the East Sedimentation Pond and there was no discharge from the pond to Howe Sound on June 16 nor on June 19.
Non-detect results are screened using the detection limit value.

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						
WWTP-E-IN	Influent	WWTP-E-IN	VA25B2820-001	2025-05-30	0.00384	1.31
Effluent						
WWTP-E-OUT	Effluent	WWTP-E-OUT	VA25B2820-002	2025-05-30	0.279	0.660

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 (June 22 – 28).

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	2025-06-22 14:59	18.8	9.91	0.94	8.47	9.3	7.2	1835	No
SP-E-IN	Influent	2025-06-23 10:29	18.5	9.18	0.99	11.5	11.6	7.2	1945	No
SP-E-IN	Influent	2025-06-24 14:56	21.7	9.08	1.04	6.9	8.1	6.6	2038	No
SP-E-IN	Influent	2025-06-25 11:31	20.8	8.93	1.03	3.07	5.3	6.6	2011	No
SP-E-IN	Influent	2025-06-26 13:18	20.3	9.14	0.91	3.5	5.6	6.9	1797	No
SP-E-IN	Influent	2025-06-27 12:48	19.3	9.02	1.02	2.94	5.2	6.8	1999	No
SP-E-IN	Influent	2025-06-28 10:47	19.2	8.79	1.21	2.77	5.1	6.8	2341	No
WWTP-E-IN	Influent	2025-06-22 14:52	19.2	10.51	1.01	6.47	7.8	7.3	1973	No
WWTP-E-IN	Influent	2025-06-23 9:35	18.3	9.51	0.95	6.59	7.9	7.0	1861	No
WWTP-E-IN	Influent	2025-06-24 14:51	22.4	9.53	1.03	3.08	5.3	6.7	2010	No
WWTP-E-IN	Influent	2025-06-25 11:27	20.6	9.04	1.02	3.44	5.6	6.7	1993	No
WWTP-E-IN	Influent	2025-06-26 13:09	21.8	***2.98***	1.03	2.41	4.8	6.7	2015	No
WWTP-E-IN	Influent	2025-06-27 12:38	19.4	9.02	1.02	2.49	4.9	6.9	2002	No
WWTP-E-IN	Influent	2025-06-28 10:39	18.6	9.14	1.18	2.94	5.2	6.8	2287	No
Effluent [5]										
WWTP-E-OUT	Effluent	2025-06-22 15:11	18.6	***5.79*** [7]	1.01	4.41	6.3	7.3	1975	No
WWTP-E-OUT	Effluent	2025-06-23 10:24	18.8	***7.46*** [7]	1.05	2.00	4.5	6.9	2057	No
WWTP-E-OUT	Effluent	2025-06-23 14:55	20.3	8.41	0.69	5.73	7.3	7.5	1370	No
WWTP-E-OUT	Effluent	2025-06-24 14:53	21.2	***7.73*** [7]	1.09	1.30	4.0	6.2	2123	No
WWTP-E-OUT	Effluent	2025-06-25 11:24	20.4	***7.83*** [7]	1.03	2.99	5.2	6.3	2020	No
WWTP-E-OUT	Effluent	2025-06-27 12:55	19.0	***6.74*** [7]	1.03	2.23	4.7	6.3	2015	No
WWTP-E-OUT	Effluent	2025-06-28 10:41	18.4	***6.38*** [7]	1.21	1.01	3.8	6.2	2352	No

Notes:
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.
Results in orange text 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 (June 22 – 28), therefore daily field measurements for SP-E-OUT were not collected on those days. The East WWTP was not operational at the time of monitoring on June 26, therefore daily field measurements for WWTP-E-OUT were not collected on June 26.
[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 treated effluent is directed to the East Sedimentation Pond and there was no discharge from the pond to Howe Sound during the monitoring period (June 22 – 28).

Table B-6: East Catchment Daily Discharge Volumes for the Monitoring Period (June 22 – 28).

	East Sedimentation Pond Effluent	Transfer to West Sedimentation Pond	East TSS Settling System (E500GPM) Clarified Effluent (Station E500GPM-OUT)[2]	East WWTP Treated Effluent (Station WWTP-E-OUT)[3]	Discharge to Howe Sound (Station SP-E-OUT)
Unit	**m^3**	**m^3**	**m^3**	**m^3**	**m^3**
PE-111578 Discharge Limit	-	-	-	1100	- [1]
Date					
2025-06-22	0	0	0	327	0
2025-06-23	0	0	0	604	0
2025-06-24	0	0	0	654	0
2025-06-25	0	0	0	567	0
2025-06-26	0	0	0	224	0
2025-06-27	0	0	0	542	0
2025-06-28	0	0	0	664	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 m^3/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] The E500GPM TSS settling system was decommissioned during the monitoring period (June 22 – 28).
[3] East WWTP treated effluent was recirculated to the East Sedimentation Pond.

Appendix C: West Catchment Monitoring Results

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

Parameter	Unit	Lowest Applicable Guideline [1]		PE-111578 Discharge Limit	Station 2700GPM-IN Influent 2700GPM-IN VA25B5146-001 2025-06-23 13:30
		Long Term	Short Term		
General Parameters					
pH - Field	pH units	- [2]	-	5.5 - 9.0	7.9
Specific Conductivity - Field	µS/cm	-	-	-	1378
Temperature - Field	°C	-	-	-	20.8
Salinity - Field	ppt	-	-	-	0.69
Turbidity - Field	NTU	-	-	-	8.65
TSS	mg/L	-	-	25 or 75 [6]	13.2
Dissolved Oxygen - Field	mg/L	≥8	-	-	9.33
Anions and Nutrients					
Sulphate	mg/L	-	-	-	478
Chloride	mg/L	-	-	-	18.9
Fluoride	mg/L	-	1.5	-	0.247
Ammonia (N-NH_3)	mg/L	1.5 [3]	10 [3]	-	<0.0050
Nitrite (N-NO_2)	mg/L	-	-	-	<0.0050
Nitrate (N-NO_3)	mg/L	3.7	339	-	<0.0250
Total Metals					
Aluminum, total (T-Al)	mg/L	-	-	-	0.367
Antimony, total (T-Sb)	mg/L	-	0.27 [4]	-	0.00106
Arsenic, total (T-As)	mg/L	0.0125	0.0125	-	0.00305
Barium, total (T-Ba)	mg/L	-	-	-	0.0111
Beryllium, total (T-Be)	mg/L	0.1	-	-	<0.000020
Boron, total (T-B)	mg/L	1.2	-	-	0.057
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000300
Chromium, total (T-Cr)	mg/L	-	-	-	0.00094
Cobalt, total (T-Co)	mg/L	-	-	-	0.00013
Copper, total (T-Cu)	mg/L	- [2]	- [2]	0.0043	0.00199
Iron, total (T-Fe)	mg/L	-	-	-	0.300
Lead, total (T-Pb)	mg/L	- [2]	- [2]	0.0035	0.00108
Manganese, total (T-Mn)	mg/L	-	-	-	0.0326
Mercury, total (T-Hg)	mg/L	0.000016 [5]	-	-	0.0000158
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.0931
Nickel, total (T-Ni)	mg/L	0.0083	-	-	0.0014
Selenium, total (T-Se)	mg/L	0.002	-	-	0.000509
Silver, total (T-Ag)	mg/L	0.0005	0.0037	-	<0.000010
Thallium, total (T-Tl)	mg/L	-	-	-	0.000043
Uranium, total (T-U)	mg/L	-	-	-	0.0105
Vanadium, total (T-V)	mg/L	- [2]	-	0.0081	0.00368
Zinc, total (T-Zn)	mg/L	- [2]	- [2]	0.0133	0.0038
Hexavalent Chromium, total	mg/L	0.0015	-	-	<0.00050
Dissolved Metals					
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000250
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00121
Iron, dissolved (D-Fe)	mg/L	-	-	-	0.033
Lead, dissolved (D-Pb)	mg/L	-	-	-	0.000192
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.0122
Nickel, dissolved (D-Ni)	mg/L	-	-	-	0.00139
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.178
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00275
Zinc, dissolved (D-Zn)	mg/L	-	-	-	0.0014
Polycyclic Aromatic Hydrocarbons (PAHs)					
Acenaphthene	mg/L	0.006	-	-	<0.000010
Acridine	mg/L	-	-	-	<0.000010
Anthracene	mg/L	-	-	-	<0.000010
Benz(a)anthracene	mg/L	-	-	-	<0.000010
Benzo(a)pyrene	mg/L	0.00001	-	-	<0.0000050
Chrysene	mg/L	0.0001	-	-	<0.000010
Fluoranthene	mg/L	-	-	-	<0.000010
Fluorene	mg/L	0.012	-	-	<0.000010
1-methylnaphthalene	mg/L	0.001	-	-	<0.000010
2-methylnaphthalene	mg/L	0.001	-	-	<0.000010
Naphthalene	mg/L	0.001	-	-	<0.000050
Phenanthrene	mg/L	-	-	-	<0.000020
Pyrene	mg/L	-	-	-	<0.000010
Quinoline	mg/L	-	-	-	<0.000050
Volatile Organic Compounds (VOCs)					
Benzene	mg/L	0.11	-	-	<0.00050
Ethylbenzene	mg/L	0.25	-	-	<0.00050
Methyl-tert-butyl-ether	mg/L	5	0.44	-	<0.00050
Styrene	mg/L	-	-	-	<0.00050
Toluene	mg/L	0.215	-	-	<0.00040
Total Xylenes	mg/L	-	-	-	<0.00050
Chlorobenzene	mg/L	0.025	-	-	<0.00050
1,2-Dichlorobenzene	mg/L	0.042	-	-	<0.00050

Notes:
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.
Results in orange text exceed the PE-111578 West Sedimentation Pond Discharge Limit.
The West Catchment did not discharge during the monitoring period (June 22 – 28).
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] The WQG was not evaluated for parameters with discharge limits.
[3] The BC WQG for total ammonia is salinity, pH and temperature dependent; see Tables 27E and 27F in BC WQG guidance document.
[4] The working BC WQG for trivalent antimony [SB(III)] is 0.27 mg/L and is applied to total antimony results.
[5] When MeHg ≤0.5% of total Hg, the BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.
[6] The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for each day of Wet Conditions.

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

Parameter	Unit	Lowest Applicable Guideline [1]		PE-111578 Discharge Limit	Station 2700GPM-OUT Effluent 2700GPM-OUT VA25B5146-002 2025-06-23 13:00
		Long Term	Short Term		
General Parameters					
pH - Field	pH units	- [2]	-	5.5 - 9.0	7.5
Specific Conductivity - Field	µS/cm	-	-	-	1370
Temperature - Field	°C	-	-	-	20.3
Salinity - Field	ppt	-	-	-	0.69
Turbidity - Field	NTU	-	-	-	5.73
TSS	mg/L	-	-	25 or 75 [6]	7.2
Dissolved Oxygen - Field	mg/L	≥8	-	-	8.41
Anions and Nutrients					
Sulphate	mg/L	-	-	-	481
Chloride	mg/L	-	-	-	17.8
Fluoride	mg/L	-	1.5	-	0.23
Ammonia ($N\text{-}NH_3$)	mg/L	3.7 [3]	25 [3]	-	0.0386
Nitrite ($N\text{-}NO_2$)	mg/L	-	-	-	<0.0050
Nitrate ($N\text{-}NO_3$)	mg/L	3.7	339	-	<0.0250
Total Metals					
Aluminum, total (T-Al)	mg/L	-	-	-	0.255
Antimony, total (T-Sb)	mg/L	-	0.27 [4]	-	0.00104
Arsenic, total (T-As)	mg/L	0.0125	0.0125	-	0.00281
Barium, total (T-Ba)	mg/L	-	-	-	0.00685
Beryllium, total (T-Be)	mg/L	0.1	-	-	<0.000020
Boron, total (T-B)	mg/L	1.2	-	-	0.029
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000250
Chromium, total (T-Cr)	mg/L	-	-	-	0.00095
Cobalt, total (T-Co)	mg/L	-	-	-	<0.00010
Copper, total (T-Cu)	mg/L	- [2]	- [2]	0.0043	0.00114
Iron, total (T-Fe)	mg/L	-	-	-	0.173
Lead, total (T-Pb)	mg/L	- [2]	- [2]	0.0035	0.000553
Manganese, total (T-Mn)	mg/L	-	-	-	0.0402
Mercury, total (T-Hg)	mg/L	0.000016 [5]	-	-	0.0000136
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.0901
Nickel, total (T-Ni)	mg/L	0.0083	-	-	0.00051
Selenium, total (T-Se)	mg/L	0.002	-	-	0.000389
Silver, total (T-Ag)	mg/L	0.0005	0.0037	-	<0.000010
Thallium, total (T-Tl)	mg/L	-	-	-	0.000074
Uranium, total (T-U)	mg/L	-	-	-	0.0094
Vanadium, total (T-V)	mg/L	- [2]	-	0.0081	0.00298
Zinc, total (T-Zn)	mg/L	- [2]	- [2]	0.0133	0.0031
Hexavalent Chromium, total	mg/L	0.0015	-	-	<0.00050
Dissolved Metals					
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000200
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00074
Iron, dissolved (D-Fe)	mg/L	-	-	-	0.031
Lead, dissolved (D-Pb)	mg/L	-	-	-	0.000121
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.0242
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00050
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.177
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00233
Zinc, dissolved (D-Zn)	mg/L	-	-	-	<0.0010
Polycyclic Aromatic Hydrocarbons (PAHs)					
Acenaphthene	mg/L	0.006	-	-	<0.000010
Acridine	mg/L	-	-	-	<0.000010
Anthracene	mg/L	-	-	-	<0.000010
Benz(a)anthracene	mg/L	-	-	-	<0.000010
Benzo(a)pyrene	mg/L	0.00001	-	-	<0.0000050
Chrysene	mg/L	0.0001	-	-	<0.000010
Fluoranthene	mg/L	-	-	-	<0.000010
Fluorene	mg/L	0.012	-	-	<0.000010
1-methylnaphthalene	mg/L	0.001	-	-	<0.000010
2-methylnaphthalene	mg/L	0.001	-	-	<0.000010
Naphthalene	mg/L	0.001	-	-	<0.000050
Phenanthrene	mg/L	-	-	-	<0.000020
Pyrene	mg/L	-	-	-	<0.000010
Quinoline	mg/L	-	-	-	<0.000050
Volatile Organic Compounds (VOCs)					
Benzene	mg/L	0.11	-	-	<0.00050
Ethylbenzene	mg/L	0.25	-	-	<0.00050
Methyl-tert-butyl-ether	mg/L	5	0.44	-	<0.00050
Styrene	mg/L	-	-	-	<0.00050
Toluene	mg/L	0.215	-	-	<0.00040
Total Xylenes	mg/L	-	-	-	<0.00050
Chlorobenzene	mg/L	0.025	-	-	<0.00050
1,2-Dichlorobenzene	mg/L	0.042	-	-	<0.00050

Notes:
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.
Results in orange text exceed the PE-111578 West Sedimentation Pond Discharge Limit.
The West Catchment did not discharge during the monitoring period (June 22 – 28).
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] The WQG was not evaluated for parameters with discharge limits.
[3] The BC WQG for total ammonia is salinity, pH and temperature dependent; see Tables 27E and 27F in BC WQG guidance document.
[4] The working BC WQG for trivalent antimony [SB(III)] is 0.27 mg/L and is applied to total antimony results.
[5] When MeHg ≤0.5% of total Hg, the BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.
[6] The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for each day of Wet Conditions.

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]	0.00069-0.00073 [3,4]
Station	**Water Type**	**Sample ID**	**Lab ID**	**Sampling Date**		
Influent						
SP-W-IN	Influent	SP-W-IN	VA25B4818-008	2025-06-19	***0.00167***	***0.0121***
Effluent						
W500GPM-OUT	Effluent	W500GPM-OUT	VA25B4818-009	2025-06-19	***0.000819*** [5]	***0.00563*** [5]

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.
[5] W500GPM clarified effluent was directed to the West Sedimentation Pond and there was no discharge from the pond to Howe Sound on June 19.
Non-detect results are screened using the detection limit value.

Table C-4: West 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-W-IN	Influent	SP-W-IN	VA25B1592-006	2025-05-19	0.00216	0.715
SP-W-IN	Influent	SP-W-IN	VA25B2860-001	2025-06-01	0.0465	0.713
Effluent						
SP-W-OUT	Effluent	SP-W-OUT	VA25B1592-002	2025-05-19	0.0200	0.715
SP-W-OUT	Effluent	SP-W-OUT-Dup	VA25B1592-003	2025-05-19	0.00269	0.690
SP-W-OUT	Effluent	SP-W-OUT	VA25B2860-002	2025-06-01	0.230	0.676
SP-W-OUT	Effluent	SP-W-OUT-Dup	VA25B2860-004	2025-06-01	0.0133	0.623

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 C-5: West Catchment Field Measurements Collected During the Monitoring Period (June 22 – 28).

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	2025-06-22 12:34	19.3	10.28	0.78	14.74	14.0	8.3	1539	No
SP-W-IN	Influent	2025-06-23 10:45	18.8	8.18	0.68	9.09	9.8	7.6	1351	No
SP-W-IN	Influent	2025-06-24 15:16	24.3	9.43	0.24	20.11	18.0	7.5	490	No
SP-W-IN	Influent	2025-06-25 11:43	20.9	8.07	0.69	12.98	12.7	7.8	1375	No
SP-W-IN	Influent	2025-06-26 12:37	20.6	8.80	0.69	7.81	8.8	8.0	1377	No
SP-W-IN	Influent	2025-06-27 12:12	18.9	9.64	0.69	5.07	6.8	8.1	1365	No
SP-W-IN	Influent	2025-06-28 11:32	19.3	9.99	0.74	4.39	6.3	7.9	1460	No
2700GPM-IN	Influent	2025-06-23 13:30	20.8	9.33	0.69	8.65	9.5	7.9	1378	No
2700GPM-IN	Influent	2025-06-25 11:10	20.8	8.07	0.69	7.43	8.5	7.9	1376	No
2700GPM-IN	Influent	2025-06-26 12:58	20.7	9.3	0.69	6.93	8.2	8.1	1377	No
2700GPM-IN	Influent	2025-06-27 12:22	19.5	9.6	0.68	6.14	7.6	8.2	1362	No
2700GPM-IN	Influent	2025-06-28 13:13	20.8	9.83	0.74	4.83	6.6	8.3	1467	No
Effluent [5]										
2700GPM-OUT	Effluent	2025-06-23 13:00	20.3	8.41	0.69	5.73	7.3	7.5	1370	No
2700GPM-OUT	Effluent	2025-06-25 11:02	20.6	8.03	0.69	5.04	6.8	7.8	1370	No
2700GPM-OUT	Effluent	2025-06-26 12:54	20.5	8.93	0.69	5.04	6.8	8.0	1375	No
2700GPM-OUT	Effluent	2025-06-27 12:26	19.4	9.81	0.68	4.85	6.6	8.1	1360	No
2700GPM-OUT	Effluent	2025-06-28 13:16	20.0	9.24	0.74	4.51	6.4	8.0	1467	No

Notes:
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.
Results in orange text 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] There was no discharge at the authorized discharge location (SP-W-OUT) during the monitoring period (June 22 – 28), therefore daily field measurements for SP-W-OUT were not collected on those days.
[6] The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for each day of Wet Conditions.

Table C-6: West Catchment Daily Discharge Volumes for the Monitoring Period (June 22 – 28).

	West Sedimentation Pond Effluent	West TSS Settling System (W500GPM) Clarified Effluent (Station W500GPM-OUT)[3]	West TSS Settling System (ESC) Clarified Effluent (Station ESC-W-OUT)[4]	West TSS Settling System (2700GPM) Clarified Effluent (Station 2700GPM-OUT)[5]	Water Reclaimed for Construction Purposes (Station 2700GPM-OUT)	West WWTP Treated Effluent [1] (Station WWTP-W-OUT)	Discharge to Howe Sound (Station SP-W-OUT)
Unit	**m^3**	**m^3**	**m^3**		**m^3**	**m^3**	**m^3**
PE-111578 Discharge Limit	-	-	-		-	120	- [2]
Date							
2025-06-22	0	0	0	334	0	0	0
2025-06-23	0	0	0	1,510	0	0	0
2025-06-24	0	0	0	998	0	0	0
2025-06-25	0	0	0	2,422	0	0	0
2025-06-26	0	0	0	2,042	55	0	0
2025-06-27	0	0	0	2,442	75	0	0
2025-06-28	0	0	0	1,858	0	0	0

Notes:
Results in orange text exceed the PE-111578 West Sedimentation Pond Discharge Limit.
[1] The West WWTP is not being operated, therefore discharges are not expected from this facility.
[2] As noted in PE-111578 Condition 2.2.4, the annual average authorized discharge rate from the West Sedimentation Pond to Howe Sound was set to 310 m^3/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] The W500GPM TSS settling system was decommissioned during the monitoring period (June 22 – 28).
[4] The ESC system was not operational during the monitoring period (June 22 – 28).
[5] Commissioning and pilot testing of a larger TSS settling system (2700GPM) commenced during the monitoring period (June 22 – 28). Clarified effluent from the 2700GPM TSS settling system is recirculated to the West Sedimentation Pond or reclaimed for construction purposes based on operational considerations.

Appendix D: Non-Contact Water Diversion Ditch Outlets Results

Table D-1: 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]	0.0045-0.0055 [3,4]
Station	**Water Type**	**Sample ID**	**Lab ID**	**Sampling Date**		
OUT-01	Non-Contact Water	OUT-01	VA25B2928-001	2025-06-01	0.000036	0.00161
OUT-02	Non-Contact Water	OUT-02	VA25B2928-002	2025-06-02	0.000032	0.00176

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: Freshwater Receiving Environment Results

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

Parameter	Unit	Lowest Applicable Guideline [1, 2]		Station SW-02 Mill Creek Lower Reach SW-02 VA25B4483-002 2025-06-17 13:30	Station SW-07 Upstream Mill Creek SW-07 VA25B4483-001 2025-06-17 12:30
		Long Term	Short Term		
General Parameters					
pH - Field	pH units	6.5 - 9.0	-	6.7	8.1
Specific Conductivity - Field	µS/cm	-	-	10	13
Temperature - Field	°C	-	-	10.8	12.2
Salinity - Field	ppt	-	-	0	0
Turbidity - Field	NTU	-	-	1.67	1.64
TSS	mg/L	-	-	<3.0	3.9
Dissolved Oxygen - Field	mg/L	>=8	>=5	11.46	10.81
Anions and Nutrients					
Sulphate [2]	mg/L	128	-	1.1	1.1
Chloride	mg/L	120	600	0.52	<0.50
Fluoride [2]	mg/L	-	0.40	<0.020	<0.020
Ammonia ($N\text{-}NH_3$) [2]	mg/L	0.343-10.3	4.61-23.9	<0.0050	<0.0050
Nitrite ($N\text{-}NO_2$) [2]	mg/L	0.020	0.060	<0.0010	<0.0010
Nitrate ($N\text{-}NO_3$)	mg/L	3.0	32.8	0.0166	0.0206
Total Metals					
Aluminum, total (T-Al) [2]	mg/L	0.020-0.13	-	***0.0493***	0.0503
Antimony, total (T-Sb)	mg/L	0.074	-	<0.00010	<0.00010
Arsenic, total (T-As)	mg/L	0.005	-	<0.00010	<0.00010
Barium, total (T-Ba)	mg/L	1	-	0.00154	0.00147
Beryllium, total (T-Be)	mg/L	0.00013	-	<0.000020	<0.000020
Boron, total (T-B)	mg/L	1.2	29	<0.010	<0.010
Cadmium, total (T-Cd) [2]	mg/L	0.000036	0.00011	<0.0000050	<0.0000050
Chromium, total (T-Cr) [4]	mg/L	0.001	-	<0.00050	<0.00050
Cobalt, total (T-Co)	mg/L	0.001	0.11	<0.00010	<0.00010
Copper, total (T-Cu)	mg/L	-	-	<0.00050	<0.00050
Iron, total (T-Fe)	mg/L	0.3	1	<0.010	<0.010
Lead, total (T-Pb)	mg/L	-	-	<0.000050	<0.000050
Manganese, total (T-Mn) [2]	mg/L	0.77	0.82	0.0004	0.00048
Mercury, total (T-Hg) [3]	mg/L	0.00002	-	0.0000006	0.0000005
Molybdenum, total (T-Mo)	mg/L	0.073	46	0.00037	0.000353
Nickel, total (T-Ni) [2]	mg/L	0.025	-	<0.00050	<0.00050
Selenium, total (T-Se)	mg/L	0.001	-	<0.000050	<0.000050
Silver, total (T-Ag)	mg/L	0.00012	-	<0.000010	<0.000010
Thallium, total (T-Tl)	mg/L	0.0008	-	<0.000010	<0.000010
Uranium, total (T-U)	mg/L	0.0085	0.033	0.000136	0.00013
Vanadium, total (T-V)	mg/L	0.12	-	<0.00050	<0.00050
Zinc, total (T-Zn)	mg/L	-	-	<0.0030	<0.0030
Hexavalent Chromium, total	mg/L	0.001	-	<0.00050	<0.00050
Dissolved Metals					
Cadmium, dissolved (D-Cd) [2]	mg/L	0.000018	0.000038	<0.0000050	<0.0000050
Copper, dissolved (D-Cu) [2]	mg/L	0.00020-0.00036	0.00020-0.0021	<0.00020	<0.00020
Iron, dissolved (D-Fe)	mg/L	-	0.35	<0.010	<0.010
Lead, dissolved (D-Pb) [2]	mg/L	0.00092-0.00093	-	<0.000050	<0.000050
Manganese, dissolved (D-Mn) [2]	mg/L	0.27-0.35	1.97	0.00056	0.00043
Nickel, dissolved (D-Ni) [2]	mg/L	0.00060	0.0084-0.0090	<0.00050	<0.00050
Strontium, dissolved (D-Sr)	mg/L	2.5	-	0.00431	0.00431
Vanadium, dissolved (D-V)	mg/L	-	-	<0.00050	<0.00050
Zinc, dissolved (D-Zn) [2]	mg/L	0.0012-0.0038	0.0070-0.0071	<0.0010	<0.0010
Polycyclic Aromatic Hydrocarbons (PAHs)					
Acenaphthene	mg/L	0.0058	-	<0.000010	<0.000010
Acridine	mg/L	0.003	-	<0.000010	<0.000010
Anthracene	mg/L	0.000012	-	<0.000010	<0.000010
Benz(a)anthracene	mg/L	0.000018	-	<0.000010	<0.000010
Benzo(a)pyrene	mg/L	0.00001	-	<0.0000050	<0.0000050
Chrysene	mg/L	-	-	<0.000010	<0.000010
Fluoranthene	mg/L	0.00004	-	<0.000010	<0.000010
Fluorene	mg/L	0.003	-	<0.000010	<0.000010
1-methylnaphthalene	mg/L	-	-	<0.000010	<0.000010
2-methylnaphthalene	mg/L	-	-	<0.000010	<0.000010
Naphthalene	mg/L	0.001	0.001	<0.000050	<0.000050
Phenanthrene	mg/L	0.0003	-	<0.000020	<0.000020
Pyrene	mg/L	0.00002	-	<0.000010	<0.000010
Quinoline	mg/L	0.0034	-	<0.000050	<0.000050
Volatile Organic Compounds (VOCs)					
Benzene	mg/L	0.04	-	<0.00050	<0.00050
Ethylbenzene	mg/L	0.09	-	<0.00050	<0.00050
Methyl-tert-butyl-ether	mg/L	10	3.4	<0.00050	<0.00050
Styrene	mg/L	0.072	-	<0.00050	<0.00050
Toluene	mg/L	0.0005	-	<0.00040	<0.00040
Total Xylenes	mg/L	0.03	-	<0.00050	<0.00050
Chlorobenzene	mg/L	-	-	<0.00050	<0.00050
1,2-Dichlorobenzene	mg/L	-	-	<0.00050	<0.00050

Notes:
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] When MeHg $\leqslant$ 0.5% of total Hg, BC WQG = 0.00002 mg/L.
[4] 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 E-2: Freshwater 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]	0.0020-0.0073 [3,4]
Station	**Water Type**	**Sample ID**	**Lab ID**	**Sampling Date**		
SW-01	Lower Reach of Woodfibre Creek (near the mouth)	SW-01	VA25B3514-001	2025-06-06	<0.000020	0.00146
SW-04	Lower Reach of East Creek (near the outlet to the outfall culvert)	SW-04	VA25B3514-002	2025-06-06	0.000026	0.00051

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.

Table E-3: Freshwater 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**		
SW-01	Lower Reach of Woodfibre Creek (near the mouth)	SW-01	VA25B3513-001	2025-06-06	0	1.58
SW-04	Lower Reach of East Creek (near the outlet to the outfall culvert)	SW-04	VA25B3513-002	2025-06-06	0	2.00

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.

Appendix F: Estuarine Water Receiving Environment Results

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

Parameter	Unit	Lowest Applicable Guideline [1]		Station SW-03 Mill Creek Estuary SW-03 VA25B4483-003 2025-06-17 14:00
		Long Term	Short Term	
General Parameters				
pH - Field	pH units	7.0 - 8.7	-	***6.5***
Specific Conductivity - Field	µS/cm	-	-	196
Temperature - Field	℃	-	-	11.4
Salinity - Field	ppt	-	-	0.1
Turbidity - Field	NTU	-	-	5.85
TSS	mg/L	-	-	<4.9
Dissolved Oxygen - Field	mg/L	-	-	11.43
Anions and Nutrients				
Sulphate	mg/L	-	-	9.46
Chloride	mg/L	-	-	54.7
Fluoride	mg/L	-	-	0.02
Ammonia (N-NH_3)	mg/L	-	-	<0.0050
Nitrite (N-NO_2)	mg/L	-	-	<0.0010
Nitrate (N-NO_3)	mg/L	-	-	0.0176
Total Metals				
Aluminum, total (T-Al)	mg/L	-	-	0.214
Antimony, total (T-Sb)	mg/L	-	-	<0.00010
Arsenic, total (T-As)	mg/L	-	-	0.00011
Barium, total (T-Ba)	mg/L	-	-	0.00301
Beryllium, total (T-Be)	mg/L	-	-	<0.000020
Boron, total (T-B)	mg/L	-	-	0.032
Cadmium, total (T-Cd)	mg/L	-	-	<0.0000050
Chromium, total (T-Cr)	mg/L	-	-	<0.00050
Cobalt, total (T-Co)	mg/L	-	-	<0.00010
Copper, total (T-Cu)	mg/L	0.002	0.003	0.00077
Iron, total (T-Fe)	mg/L	-	-	0.159
Lead, total (T-Pb)	mg/L	0.002	0.14	0.000299
Manganese, total (T-Mn)	mg/L	-	-	0.00592
Mercury, total (T-Hg) [2]	mg/L	0.00002	-	0.00000086
Molybdenum, total (T-Mo)	mg/L	-	-	0.000747
Nickel, total (T-Ni)	mg/L	-	-	<0.00050
Selenium, total (T-Se)	mg/L	-	-	<0.000050
Silver, total (T-Ag)	mg/L	-	-	<0.000010
Thallium, total (T-Tl)	mg/L	-	-	<0.000010
Uranium, total (T-U)	mg/L	-	-	0.000153
Vanadium, total (T-V)	mg/L	-	-	0.00056
Zinc, total (T-Zn)	mg/L	-	-	<0.0030
Hexavalent Chromium, total	mg/L	-	-	<0.00050
Dissolved Metals				
Cadmium, dissolved (D-Cd)	mg/L	-	-	<0.0000050
Copper, dissolved (D-Cu)	mg/L	-	-	<0.00020
Iron, dissolved (D-Fe)	mg/L	-	-	<0.010
Lead, dissolved (D-Pb)	mg/L	-	-	<0.000050
Manganese, dissolved (D-Mn)	mg/L	-	-	0.00078
Nickel, dissolved (D-Ni)	mg/L	-	-	<0.00050
Strontium, dissolved (D-Sr)	mg/L	-	-	0.0262
Vanadium, dissolved (D-V)	mg/L	-	-	<0.00050
Zinc, dissolved (D-Zn)	mg/L	-	-	<0.0010
Polycyclic Aromatic Hydrocarbons (PAHs)				
Acenaphthene	mg/L	-	-	<0.000010
Acridine	mg/L	-	-	<0.000010
Anthracene	mg/L	-	-	<0.000010
Benz(a)anthracene	mg/L	-	-	<0.000010
Benzo(a)pyrene	mg/L	-	-	<0.0000050
Chrysene	mg/L	-	-	<0.000010
Fluoranthene	mg/L	-	-	<0.000010
Fluorene	mg/L	-	-	<0.000010
1-methylnaphthalene	mg/L	-	-	<0.000010
2-methylnaphthalene	mg/L	-	-	<0.000010
Naphthalene	mg/L	-	-	<0.000050
Phenanthrene	mg/L	-	-	<0.000020
Pyrene	mg/L	-	-	<0.000010
Quinoline	mg/L	-	-	<0.000050
Volatile Organic Compounds (VOCs)				
Benzene	mg/L	-	-	<0.00050
Ethylbenzene	mg/L	-	-	<0.00050
Methyl-tert-butyl-ether	mg/L	-	-	<0.00050
Styrene	mg/L	-	-	<0.00050
Toluene	mg/L	-	-	<0.00040
Total Xylenes	mg/L	-	-	<0.00050
Chlorobenzene	mg/L	-	-	<0.00050
1,2-Dichlorobenzene	mg/L	-	-	<0.00050

Notes:
Results in ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of estuarine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of estuarine water aquatic life.
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] When MeHg ⩽ 0.5% of total Hg, BC WQG = 0.00002 mg/L.

Appendix G: Marine Water Receiving Environment Results

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

Parameter	Unit	Lowest Applicable Guideline [1]		Station IDZ-W1			Station IDZ-W2		
				0.5 m Below Surface	2 m Below Surface	2 m Above Seafloor	0.5 m Below Surface	2 m Below Surface	2 m Above Seafloor
				IDZ-W1-0.5	IDZ-W1-2m	IDZ-W1-SF	IDZ-W2-0.5	IDZ-W2-2m	IDZ-W2-SF
				VA25B4487-001	VA25B4487-002	VA25B4487-003	VA25B4487-004	VA25B4487-005	VA25B4487-006
		Long Term	Short Term	2025-06-17 9:00	2025-06-17 8:40	2025-06-17 8:15	2025-06-17 9:40	2025-06-17 9:25	2025-06-17 9:15
General Parameters									
pH - Field	pH units	7.0 - 8.7	-	***6.54***	7.23	7.62	7.45	8.09	7.59
Specific Conductivity - Field	µS/cm	-	-	3211	7286	47191	3526	12223	47279
Temperature - Field	℃	-	-	12.5	13.0	9.9	12.6	13.0	9.8
Salinity - Field	ppt	Narrative [2]	-	1.69	4.03	30.5	1.87	7.03	30.56
Turbidity - Field	NTU	Narrative [2]	Narrative [2]	13.05	10.77	2.16	12.43	10.33	2.13
TSS	mg/L	Narrative [2]	Narrative [2]	6.0	2.0	<2.0	6.2	5.8	<2.0
Dissolved Oxygen - Field	mg/L	>=8	-	10.37	10.77	***7.31***	10.97	10.79	***7.68***
Anions and Nutrients									
Sulphate	mg/L	-	-	115	1600	2260	188	185	2220
Chloride	mg/L	-	-	864	11700	16300	1380	1350	16100
Fluoride	mg/L	-	1.5	<0.400	<2.00	<2.00	<0.400	<0.400	<2.00
Ammonia (N-NH_3)	mg/L	2.0-22 [3]	13-148 [3]	0.0061	0.0216	0.0131	0.0079	0.0282	0.0064
Nitrite (N-NO_2)	mg/L	-	-	<0.0200	<0.100	<0.100	<0.0200	<0.0200	<0.100
Nitrate (N-NO_3)	mg/L	3.7	339	<0.100	<0.500	<0.500	<0.100	0.452	<0.500
Total Metals									
Aluminum, total (T-Al)	mg/L	-	-	0.455	0.0846	0.0271	0.382	0.345	0.0411
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	<0.00040	0.0012	0.00155	<0.00040	<0.00040	0.00158
Barium, total (T-Ba)	mg/L	-	-	0.0131	0.0112	0.0103	0.0129	0.013	0.0106
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	-	0.30	***2.61***	***3.53***	<0.30	0.35	***3.55***
Cadmium, total (T-Cd)	mg/L	0.00012	-	<0.000020	0.000043	0.000069	<0.000020	<0.000020	0.000083
Chromium, total (T-Cr)	mg/L	-	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, total (T-Co)	mg/L	-	-	0.0002	0.000118	0.000079	0.000172	0.000176	0.0001
Copper, total (T-Cu)	mg/L	0.002	0.003	0.00118	0.00076	<0.00050	0.00107	0.00114	0.00077
Iron, total (T-Fe)	mg/L	-	-	0.389	0.084	0.023	0.324	0.303	0.04
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	-	-	0.0141	0.0057	0.00282	0.0129	0.0125	0.00314
Mercury, total (T-Hg)	mg/L	0.000016 [5]	-	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total (T-Mo)	mg/L	-	-	0.00088	0.00709	0.00906	0.00084	0.00109	0.0097
Nickel, total (T-Ni)	mg/L	0.0083	-	<0.00050	0.0005	<0.00050	<0.00050	<0.00050	<0.00050
Selenium, total (T-Se)	mg/L	0.002	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Silver, total (T-Ag)	mg/L	0.0005	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	-	-	0.00019	0.00195	0.00267	0.000223	0.000271	0.0027
Vanadium, total (T-V)	mg/L	0.005	-	0.0012	0.00123	0.0016	0.0011	0.00109	0.0016
Zinc, total (T-Zn)	mg/L	0.01	0.055	<0.0030	0.0058	<0.0030	<0.0030	<0.0030	<0.0030
Hexavalent Chromium, total	mg/L	0.0015	-	<0.00150	<0.00150	<0.00150	<0.00150	<0.00150	<0.00150
Dissolved Metals									
Cadmium, dissolved (D-Cd)	mg/L	-	-	<0.000020	0.000061	0.000078	0.000026	0.000042	0.00008
Copper, dissolved (D-Cu)	mg/L	-	-	<0.00050	0.00069	0.00052	0.00051	0.00062	0.00078
Iron, dissolved (D-Fe)	mg/L	-	-	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Lead, dissolved (D-Pb)	mg/L	-	-	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Manganese, dissolved (D-Mn)	mg/L	-	-	0.00432	0.0034	0.00283	0.00423	0.00377	0.00343
Nickel, dissolved (D-Ni)	mg/L	-	-	<0.00050	<0.00050	0.00053	<0.00050	<0.00050	0.00058
Strontium, dissolved (D-Sr)	mg/L	-	-	0.358	4.35	6.20	0.366	3.17	6.12
Vanadium, dissolved (D-V)	mg/L	-	-	<0.00050	0.00104	0.00142	<0.00050	0.00088	0.00141
Zinc, dissolved (D-Zn)	mg/L	-	-	<0.0010	<0.0010	0.001	<0.0010	<0.0010	<0.0010
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] Narrative guideline for the evaluation of change from background conditions arising from discharges to the aquatic environment. Salinity WQG was not evaluated. The water quality data presented in the table were collected when the site was not discharging, therefore the turbidity and TSS WQGs were not evaluated.
[3] 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 G-2: Summary of Marine Water Quality Results Received at the Time of Reporting

Parameter	Unit	Lowest Applicable Guideline [1]		Reference Station WQR2		
				0.5 m Below Surface	2 m Below Surface	2 m Above Seafloor
				WQR2-0.5	WQR2-2m	WQR2-SF
				VA25B4487-007	VA25B4487-008	VA25B4487-009
		Long Term	Short Term	2025-06-17 11:30	2025-06-17 11:15	2025-06-17 11:00
General Parameters						
pH - Field	pH units	7.0 - 8.7	-	7.36	7.94	7.63
Specific Conductivity - Field	µS/cm	-	-	3058	9634	47002
Temperature - Field	°C	-	-	12.7	13.2	10.1
Salinity - Field	ppt	Narrative [2]	-	1.6	5.28	30.43
Turbidity - Field	NTU	Narrative [2]	Narrative [2]	13.4	10.4	2.36
TSS	mg/L	Narrative [2]	Narrative [2]	5.4	<2.0	<2.0
Dissolved Oxygen - Field	mg/L	>=8	-	10.68	10.83	***7.97***
Anions and Nutrients						
Sulphate	mg/L	-	-	107	1410	2110
Chloride	mg/L	-	-	819	10400	15200
Fluoride	mg/L	-	1.5	<0.400	<2.00	<2.00
Ammonia ($N\text{-}NH_3$)	mg/L	3.1-14 [3]	21-94 [3]	<0.0050	<0.0050	0.0188
Nitrite ($N\text{-}NO_2$)	mg/L	-	-	<0.0200	<0.100	<0.100
Nitrate ($N\text{-}NO_3$)	mg/L	3.7	339	<0.100	<0.500	<0.500
Total Metals						
Aluminum, total (T-Al)	mg/L	-	-	0.431	0.467	0.0275
Antimony, total (T-Sb)	mg/L	-	0.27 [4]	<0.0010	<0.0010	<0.0010
Arsenic, total (T-As)	mg/L	0.0125	0.0125	<0.00040	<0.00040	0.00156
Barium, total (T-Ba)	mg/L	-	-	0.0136	0.014	0.0103
Beryllium, total (T-Be)	mg/L	0.1	-	<0.00050	<0.00050	<0.00050
Boron, total (T-B)	mg/L	1.2	-	<0.30	0.32	***3.46***
Cadmium, total (T-Cd)	mg/L	0.00012	-	<0.000020	<0.000020	0.000065
Chromium, total (T-Cr)	mg/L	-	-	<0.00050	<0.00050	<0.00050
Cobalt, total (T-Co)	mg/L	-	-	0.000181	0.000201	0.000084
Copper, total (T-Cu)	mg/L	0.002	0.003	0.00122	***0.00404***	0.0006
Iron, total (T-Fe)	mg/L	-	-	0.35	0.369	0.02
Lead, total (T-Pb)	mg/L	0.002	0.14	<0.00010	<0.00010	<0.00010
Manganese, total (T-Mn)	mg/L	-	-	0.0138	0.0143	0.0027
Mercury, total (T-Hg)	mg/L	0.000016 [5]	-	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total (T-Mo)	mg/L	-	-	0.00087	0.001	0.00923
Nickel, total (T-Ni)	mg/L	0.0083	-	<0.00050	<0.00050	<0.00050
Selenium, total (T-Se)	mg/L	0.002	-	<0.00050	<0.00050	<0.00050
Silver, total (T-Ag)	mg/L	0.0005	0.0037	<0.00010	<0.00010	<0.00010
Thallium, total (T-Tl)	mg/L	-	-	<0.000050	<0.000050	<0.000050
Uranium, total (T-U)	mg/L	-	-	0.000176	0.000234	0.00255
Vanadium, total (T-V)	mg/L	0.005	-	0.00118	0.00125	0.00147
Zinc, total (T-Zn)	mg/L	0.01	0.055	<0.0030	<0.0030	<0.0030
Hexavalent Chromium, total	mg/L	0.0015	-	<0.00150	<0.00150	<0.00150
Dissolved Metals						
Cadmium, dissolved (D-Cd)	mg/L	-	-	0.000021	<0.000020	0.000073
Copper, dissolved (D-Cu)	mg/L	-	-	<0.00050	0.00052	0.00058
Iron, dissolved (D-Fe)	mg/L	-	-	<0.010	0.012	<0.010
Lead, dissolved (D-Pb)	mg/L	-	-	<0.00010	<0.00010	<0.00010
Manganese, dissolved (D-Mn)	mg/L	-	-	0.00451	0.00464	0.00326
Nickel, dissolved (D-Ni)	mg/L	-	-	<0.00050	<0.00050	0.00056
Strontium, dissolved (D-Sr)	mg/L	-	-	0.345	0.548	6.08
Vanadium, dissolved (D-V)	mg/L	-	-	<0.00050	<0.00050	0.00135
Zinc, dissolved (D-Zn)	mg/L	-	-	<0.0010	<0.0010	<0.0010
Polycyclic Aromatic Hydrocarbons (PAHs)						
Acenaphthene	mg/L	0.006	-	<0.000010	<0.000010	<0.000010
Acridine	mg/L	-	-	<0.000010	<0.000010	<0.000010
Anthracene	mg/L	-	-	<0.000010	<0.000010	<0.000010
Benz(a)anthracene	mg/L	-	-	<0.000010	<0.000010	<0.000010
Benzo(a)pyrene	mg/L	0.00001	-	<0.0000050	<0.0000050	<0.0000050
Chrysene	mg/L	0.0001	-	<0.000010	<0.000010	<0.000010
Fluoranthene	mg/L	-	-	<0.000010	<0.000010	<0.000010
Fluorene	mg/L	0.012	-	<0.000010	<0.000010	<0.000010
1-methylnaphthalene	mg/L	0.001	-	0.000012	<0.000010	<0.000010
2-methylnaphthalene	mg/L	0.001	-	0.000021	0.000016	<0.000010
Naphthalene	mg/L	0.001	-	<0.000050	<0.000050	<0.000050
Phenanthrene	mg/L	-	-	<0.000020	<0.000020	<0.000020
Pyrene	mg/L	-	-	<0.000010	<0.000010	<0.000010
Quinoline	mg/L	-	-	<0.000050	<0.000050	<0.000050
Volatile Organic Compounds (VOCs)						
Benzene	mg/L	0.11	-	<0.00050	<0.00050	<0.00050
Ethylbenzene	mg/L	0.25	-	<0.00050	<0.00050	<0.00050
Methyl-tert-butyl-ether	mg/L	5	0.44	<0.00050	<0.00050	<0.00050
Styrene	mg/L	-	-	<0.00050	<0.00050	<0.00050
Toluene	mg/L	0.215	-	<0.00040	<0.00040	<0.00040
Total Xylenes	mg/L	-	-	<0.00050	<0.00050	<0.00050
Chlorobenzene	mg/L	0.025	-	<0.00050	<0.00050	<0.00050
1,2-Dichlorobenzene	mg/L	0.042	-	<0.00050	<0.00050	<0.00050

Notes:
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] Narrative guideline for the evaluation of change from background conditions arising from discharges to the aquatic environment. Salinity WQG was not evaluated. The water quality data presented in the table 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 $\leqslant$ 0.5% of total Hg, BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.

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

Parameter	Unit	Lowest Applicable Guideline [1]		Station IDZ-E1			Station IDZ-E2		
				0.5 m Below Surface	2 m Below Surface	2 m Above Seafloor	0.5 m Below Surface	2 m Below Surface	2 m Above Seafloor
				IDZ-E1-0.5	IDZ-E1-2m	IDZ-E1-SF	IDZ-E2-0.5	IDZ-E2-2m	IDZ-E2-SF
				VA25B4665-001	VA25B4665-002	VA25B4665-003	VA25B4665-004	VA25B4665-005	VA25B4665-006
		Long Term	Short Term	2025-06-18 11:45	2025-06-18 11:50	2025-06-18 11:55	2025-06-18 11:30	2025-06-18 11:35	2025-06-18 11:40
General Parameters									
pH - Field	pH units	7.0 - 8.7	-	7.85	8.04	7.58	8.13	8.08	7.72
Specific Conductivity - Field	µS/cm	-	-	2954	16347	47643	1721	18130	45374
Temperature - Field	°C	-	-	12.5	12.7	9.8	12.8	13.2	11.4
Salinity - Field	ppt	Narrative [2]	-	1.55	9.62	30.82	0.88	10.76	29.29
Turbidity - Field	NTU	Narrative [2]	Narrative [2]	12.20	10.67	2.18	13.28	9.36	2.49
TSS	mg/L	Narrative [2]	Narrative [2]	6.5	5.1	<2.0	6.6	2.8	<2.0
Dissolved Oxygen - Field	mg/L	>=8	-	10.50	10.63	***7.30***	10.40	10.51	9.19

Notes:
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] Narrative guideline for the evaluation of change from background conditions arising from discharges to the aquatic environment. Salinity WQG was not evaluated. The water quality data presented in the table were collected when the site was not discharging, therefore the turbidity and TSS WQGs were not evaluated.