

## TECHNICAL MEMORANDUM

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**To:** Ian McAllister, Ashleigh Crompton, Mike Champion,  
Mark Zan and Ryan Schucroft (Woodfibre LNG) **Date:** 13 June 2025

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

**Subject:** PE-111578 Weekly Discharge and Compliance Report #67 for June 1 – 7

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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 #67) was prepared by Lorax Environmental and summarizes WDA monitoring conducted for the period of June 1 – 7. 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 #67 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.

The West WWTP was commissioned August and September 2024, but operation of the West WWTP was subsequently suspended September 25, 2024 for 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 previously approved 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 west catchment waters that require treatment are directed to the East WWTP.

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

Flocculant-based TSS settling systems are used at the East and West Sedimentation Ponds to remove TSS from pond effluent. The first West Sedimentation Pond TSS settling system (ESC) was commissioned for use on September 25, 2024, with an 820 m<sup>3</sup>/day installed capacity.

Additional TSS settling systems (W500GPM) was commissioned for use on November 28 and provides an additional 2,725 m<sup>3</sup>/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<sup>3</sup>/day installed capacity.

Discharge from the East and West Sedimentation Ponds is controlled using pumps. Water stored in the ponds is pumped to a TSS settling system prior to discharge through the authorized outfall structures adjacent to each pond. Some of the TSS clarified water may be recirculated back to the ponds or re-used for construction (*e.g.*, dust suppression). Non-contaminated contact water stored in the East Sedimentation Pond is clarified through the E500GPM prior to re-use or discharge to Howe Sound at location SP-E-OUT. The west catchment discharge location, SP-W-OUT, receives the combined clarified effluents from the ESC and W500GPM TSS settling systems. Each of the authorized discharge locations (SP-E-OUT and SP-W-OUT) has 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.

Preparations underway for the next stages of construction will include upgrades to water management in the east and west catchments and consolidate the three TSS settling systems currently on site into a single high capacity system located adjacent to the West Sedimentation Pond. Commissioning of the planned system is scheduled to commence August 2025. The planned modifications will result in all non-contaminated contact water being clarified through the high capacity TSS settling system and discharged at SP-W-OUT.

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 monitoring period (June 1 – 7), with precipitation recorded on June 2 (7.2 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
2025-06-01	0	18.4	8.0	Sunny
2025-06-02	7.2	19.5	9.2	Rain
2025-06-03	0	20.6	9.7	Sunny
2025-06-04	0	19.4	10.5	Sunny
2025-06-05	0	23.7	10.8	Sunny
2025-06-06	0	22.6	12.4	Sunny
2025-06-07	0	23.8	12.1	Sunny

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

From June 1 – 7, the East Sedimentation Pond received non-contaminated contact water from Area 1100 North Collection Sump and recirculated water from the East WWTP and E500GPM TSS settling system (Appendix A, Figure 2). Non-contaminated contact waters from the Upper Area 4100 Collection Sump were directed to the West Sedimentation Pond, as well as recirculated water from the W500GPM TSS settling system (Appendix A, Figure 3). During the monitoring period (June 1 – 7), a total of 1,715 m<sup>3</sup> of water from the East Sedimentation Pond was transferred to the West Sedimentation Pond.

Routine operation of the East WWTP continued during the monitoring period (June 1 – 7). Concrete contact waters and water from the hydrovac pit 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 during the monitoring period (June 1 – 7) except on June 5 when the East WWTP was not operational. Pond effluent was clarified through the E500GPM TSS settling system and recirculated to the East Sedimentation Pond on June 1, 2, and 3. Effluent was not discharged to Howe Sound (station SP-E-OUT) during the monitoring period. Daily water volumes processed by the East WWTP and the East TSS settling system (E500GPM) are provided in Appendix B (Table B-6).

West Sedimentation Pond effluent was clarified through the W500GPM system each day during the monitoring period (June 1 – 7) and recirculated to the West Sedimentation Pond, discharged to Howe Sound, or reclaimed and used for construction purposes (*e.g.*, road dust suppression, fill compaction, or hydrovac truck operation). The West ESC (150 GPM) TSS settling system was not operational. A total of 1,949 m<sup>3</sup> of clarified effluent from the W500GPM TSS settling system was discharged to Howe Sound (station SP-W-OUT) during the monitoring period on June 1 and June 6. From June 1 – 7, a total of 517 m<sup>3</sup> of clarified effluent was reclaimed for construction use. Daily clarified effluent volumes from the TSS settling systems, volumes discharged to Howe Sound and volumes of reclaimed water are provided in Appendix C (Table C-5).

## 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, 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 W500GPM) as described in Section 1.1. Influent and effluent are monitored for each system at stations ESC-W-IN, ESC-W-OUT, W500GPM-IN and W500GPM-OUT. One TSS settling system (E500GPM) is used at the East Sedimentation Pond (Section 1.1). Influent and effluent are monitored at stations E500GPM-IN and E500GPM-OUT, respectively. The TSS settling system stations are supplemental to the PE-111578 monitoring requirements and are monitored at the discretion of field staff.

Water quality was monitored at stations OUT-01, OUT-02, SW-01, SW-04, IDZ-E1, IDZ-E2, IDZ-W1, IDZ-W2, WWTP-E-IN, WWTP-E-OUT, SP-E-IN, E500GPM-IN, E500GPM-OUT, SP-W-IN, SP-W-OUT, W500GPM-IN, and W500GPM-OUT during the monitoring period (June 1 – 7). Sampling dates and parameters tested are summarized in Table 2.

Overall, the PE-111578 monitoring requirements that were applicable during the monitoring period (June 1 – 7) were met.

Daily field parameters and a weekly analytical sample were not collected at the east catchment effluent station (SP-E-OUT) as there was no discharge to Howe Sound during the monitoring period (June 1 – 7). Daily field parameters were not collected at the west catchment effluent station (SP-W-OUT) on June 2, 3, 4, 5, and 7 as there was no discharge to Howe Sound on those days. 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 1 – 7.

Sampling Date	Sample	Description	Parameters Tested	Monitoring Frequency
June 1, 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		
	E500GPM-IN	East 500 GPM TSS settling system at the influent meter box	Field Parameters.	P
	E500GPM-OUT	East 500 GPM TSS settling system at the effluent meter box		
	SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	D, W <sub>1</sub> , W <sub>2</sub>
	SP-W-OUT	West Sedimentation Pond clarified effluent discharge to Howe Sound, collected at sampling port	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	D, W <sub>1</sub> , W <sub>2</sub>
	W500GPM-IN	West 500 GPM TSS settling system at the influent meter box	Field Parameters.	P
	W500GPM-OUT	West 500 GPM TSS settling system at the effluent meter box		
June 2, 2025	OUT-01	Non-contact water diversion ditch outlet	Field, Physical & General Parameters, Total and Dissolved Metals, and Methylmercury.	M
	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		
	E500GPM-IN	East 500 GPM TSS settling system at the influent meter box	Field Parameters.	P
	E500GPM-OUT	East 500 GPM TSS settling system at the effluent meter box		
	SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	W500GPM-IN	West 500 GPM TSS settling system at the influent meter box	Field Parameters.	P
	W500GPM-OUT	West 500 GPM TSS settling system at the effluent meter box		
June 3, 2025	OUT-02	Non-contact water diversion ditch outlet	Field, Physical & General Parameters, Total and Dissolved Metals, and Methylmercury.	M
	SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	D, W <sub>1</sub> , W <sub>2</sub>
	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 <sub>1</sub> , W <sub>2</sub>
	WWTP-E-OUT	East WWTP at the effluent meter box		
	SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	D, W <sub>1</sub> , W <sub>2</sub>
	W500GPM-IN	West 500 GPM TSS settling system at the influent meter box	Field Parameters.	P
	W500GPM-OUT	West 500 GPM TSS settling system at the effluent meter box	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	P
	IDZ-E1-0.5	Howe Sound IDZ station E1; 0.5 m below surface	Field and Physical Parameters.	W <sub>3</sub>
	IDZ-E1-2m	Howe Sound IDZ station E1; 2 m below surface		
	IDZ-E1-SF	Howe Sound IDZ station E1; 2 m above the seafloor		
	IDZ-E2-0.5	Howe Sound IDZ station E2; 0.5 m below surface		
	IDZ-E2-2m	Howe Sound IDZ station E2; 2 m below surface		
	IDZ-E2-SF	Howe Sound IDZ station E2; 2 m above the seafloor		
	IDZ-W1-0.5	Howe Sound IDZ station W1; 0.5 m below surface		
	IDZ-W1-2m	Howe Sound IDZ station W1; 2 m below surface		
	IDZ-W1-SF	Howe Sound IDZ station W1; 2 m above the seafloor		
	IDZ-W2-0.5	Howe Sound IDZ station W2; 0.5 m below surface		
	IDZ-W2-2m	Howe Sound IDZ station W2; 2 m below surface		
	IDZ-W2-SF	Howe Sound IDZ station W2; 2 m above the seafloor		
June 4, 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
	W500GPM-IN	West 500 GPM TSS settling system at the influent meter box	Field Parameters.	P
	W500GPM-OUT	West 500 GPM TSS settling system at the effluent meter box	Field and Physical Parameters, Total and Dissolved Metals.	P
June 5, 2025	SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	W500GPM-IN	West 500 GPM TSS settling system at the influent meter box	Field Parameters.	P
	W500GPM-OUT	West 500 GPM TSS settling system at the effluent meter box		
June 6, 2025	SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	WWTP-E-IN	East WWTP at the influent meter box	Field Parameters.	D
	WWTP-E-OUT	East WWTP at the effluent meter box		
	SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	SP-W-OUT	West Sedimentation Pond clarified effluent discharge to Howe Sound, collected at sampling port	Field and Physical Parameters, Total and Dissolved Metals.	D, W <sub>1</sub>
	W500GPM-IN	West 500 GPM TSS settling system at the influent meter box	Field Parameters.	P
	W500GPM-OUT	West 500 GPM TSS settling system at the effluent meter box		
	SW-01	Lower Reach of Woodfibre Creek (near the mouth)	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	M
	SW-04	Lower Reach of East Creek (near the outlet to the outfall culvert)	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	M
June 7, 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
	W500GPM-IN	West 500 GPM TSS settling system at the influent meter box	Field Parameters.	P
	W500GPM-OUT	West 500 GPM TSS settling system at the effluent meter box		

**Notes:** Monitoring frequency requirements under PE-111578 are indicated as follows:  
D – daily monitoring of field parameters at WWTP and sedimentation pond influent and effluent stations.  
M – monthly monitoring for all parameters at WWTP, sedimentation pond and receiving environment stations.  
W<sub>1</sub> – initial high frequency monitoring for physical parameters at WWTP and sedimentation pond influent and effluent stations.  
W<sub>2</sub> – initial high frequency monitoring for all parameters at WWTP and sedimentation pond influent and effluent stations.  
W<sub>3</sub> – initial high frequency monitoring for field and physical parameters at IDZ stations.  
P – periodic monitoring for targeted parameters that is supplementary to PE-111578 requirements.

### **3. Water Quality Results**

#### **3.1 Screening and Reporting Overview**

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

Canadian, Federal and BC WQGs are not specified for dioxins and furans. The general term “dioxins and furans” refers to 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 #67) are listed below in Table 3. Testing for methylmercury, dioxins and furans typically requires up to four

weeks 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)
- SP-W-IN and W500GPM-OUT collected May 15 (dioxins and furans)
- SP-W-IN and SP-W-OUT collected May 19 (dioxins and furans)
- SP-E-IN, WWTP-E-IN, and WWTP-E-OUT collected May 22 (dioxins and furans)
- IDZ-E1, IDZ-E2, IDZ-W1, IDZ-W2, WQR1, and WQR2 collected May 27 at 0.5 m below surface (chronic toxicity)
- SP-W-IN and W500GPM-OUT collected May 28 (dioxins and furans)
- SP-E-IN and E500GPM-OUT collected May 29 (dioxins and furans)
- WWTP-E-IN and WWTP-E-OUT collected May 30 (dioxins and furans)
- SP-W-IN and SP-W-OUT collected June 1 (dioxins and furans)
- OUT-01 collected June 1 (field and all analytical parameters)
- OUT-02 collected June 2 (field and all analytical parameters)
- SP-E-IN, WWTP-E-IN, WWTP-E-OUT, SP-W-IN, and W500GPM-OUT collected June 3 (dioxins and furans)
- IDZ-E1, IDZ-E2, IDZ-W1 and IDZ-W2 collected June 3 (field and all analytical parameters)
- SP-W-OUT collected June 6 (all analytical parameters)
- SW-01 and SW-04 collected June 6 (field and all analytical parameters)



**Table 3:        Summary of Analytical Results Included in Weekly Discharge and Compliance Report #67.**

Sample	Description	Sampling Date	Parameters Reported
IDZ-E1-0.5	Howe Sound IDZ station E1; 0.5 m below surface	May 9, 2025	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, VOCs, Methylmercury, Dioxins and Furans.
IDZ-E1-2m	Howe Sound IDZ station E1; 2 m below surface		
IDZ-E1-SF	Howe Sound IDZ station E1; 2 m above the seafloor		
IDZ-E2-0.5	Howe Sound IDZ station E2; 0.5 m below surface		
IDZ-E2-2m	Howe Sound IDZ station E2; 2 m below surface		
IDZ-E2-SF	Howe Sound IDZ station E2; 2 m above the seafloor		
WQR1-0.5	Reference site 1; 0.5 m below surface		
WQR1-2m	Reference site 1; 2 m below surface		
WQR1-SF	Reference site 1; 2 m above the seafloor		
SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	May 10, 2025	Dioxins and Furans.
WWTP-E-IN	East WWTP at the influent meter box		
WWTP-E-OUT	East WWTP at the effluent meter box		
SW-01	Lower Reach of Woodfibre Creek (near the mouth)	May 12, 2025	Methylmercury, Dioxins and Furans.
SW-04	Lower Reach of East Creek (near the outlet to the outfall culvert)		
SW-02	Lower Reach of Mill Creek (upstream of the third bridge)		
SW-03	Mill Creek Estuary	May 13, 2025	Methylmercury, Dioxins and Furans.
SW-07	Upstream Mill Creek (at the diversion inlet)		
OUT-02	Non-contact water diversion ditch outlet		
OUT-01	Non-contact water diversion ditch outlet	May 19, 2025	Methylmercury.
		May 20, 2025	Methylmercury.
IDZ-E1-0.5	Howe Sound IDZ station E1; 0.5 m below surface	May 27, 2025	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, and PAHs.
IDZ-E2-0.5	Howe Sound IDZ station E2; 0.5 m below surface		
IDZ-W1-0.5	Howe Sound IDZ station W1; 0.5 m below surface		
IDZ-W2-0.5	Howe Sound IDZ station W2; 0.5 m below surface		
WQR1-0.5	Reference site 1; 0.5 m below surface		
WQR2-0.5	Reference site 2; 0.5 m below surface		
IDZ-E1-2m	Howe Sound IDZ station E1; 2 m below surface		Field and Physical Parameters.
IDZ-E1-SF	Howe Sound IDZ station E1; 2 m above the seafloor		
IDZ-E2-2m	Howe Sound IDZ station E2; 2 m below surface		
IDZ-E2-SF	Howe Sound IDZ station E2; 2 m above the seafloor		
IDZ-W1-2m	Howe Sound IDZ station W1; 2 m below surface		
IDZ-W1-SF	Howe Sound IDZ station W1; 2 m above the seafloor		
IDZ-W2-2m	Howe Sound IDZ station W2; 2 m below surface		
IDZ-W2-SF	Howe Sound IDZ station W2; 2 m above the seafloor		
SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond		
W500GPM-OUT	West 500 GPM TSS settling system at the effluent meter box	May 28, 2025	Methylmercury.
SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	May 29, 2025	Methylmercury.
E500GPM-OUT	East Sedimentation Pond 500 GPM TSS settling system at the effluent meter box	May 30, 2025	Methylmercury.
WWTP-E-IN	East WWTP at the influent meter box		
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	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, VOCs, and Methylmercury.
SP-W-OUT	West Sedimentation Pond clarified effluent discharge to Howe Sound, collected at sampling port		
SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	June 3, 2025	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, VOCs, and Methylmercury.
WWTP-E-IN	East WWTP at the influent meter box		
WWTP-E-OUT	East WWTP 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		
W500GPM-OUT	West 500 GPM TSS settling system at the effluent meter box	June 4, 2025	Field and Physical Parameters, Total and Dissolved Metals,

### 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 1 – 7), the TSS settling system (E500GPM) was operated on June 1, 2 and 3 and produced clarified East Sedimentation Pond effluent that was recirculated to the pond. The east catchment did not discharge during the monitoring period. Daily clarified effluent volumes, 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 1 – 7 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 3 (stations SP-E-IN, 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 3, June 6 and June 7 (Appendix B, Table B-5) and total copper and total mercury were above the MDOs in East WWTP effluent collected on June 3 (Appendix B, Table B-2). East WWTP treated effluent is directed to the East Sedimentation Pond and there was no discharge from the pond to Howe Sound during monitoring period (June 1 – 7). The metal parameters above the MDOs are tracked in Table 5.

Methylmercury results were available for East Sedimentation Pond influent (SP-E-IN) and clarified effluent from the E500GPM system (E500GPM-OUT) collected May 29 and East WWTP influent and effluent (WWTP-E-IN and WWTP-E-OUT, respectively) collected May 30 (as discussed in Report #66). Methylmercury results were also available for East Sedimentation Pond influent (SP-E-IN) and East WWTP influent and effluent (WWTP-E-IN and WWTP-E-OUT, respectively) collected June 3. Methylmercury was above WQG in the E500GPM-OUT sample collected May 29 (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 May 29. Methylmercury was above the MDO in the WWTP-E-OUT samples collected May 30 and June 3 (Appendix B, Table B-3). East WWTP treated effluent is directed to the East Sedimentation Pond and there was no discharge from the pond to Howe Sound on those days. Total mercury concentrations are also listed in Appendix B, Table B-3 and are above the MDO and WQG. Mercury parameters are tracked in Table 5.

Dioxin and furan results were reported for East Sedimentation Pond influent (station SP-E-IN) and East WWTP influent and effluent (WWTP-E-IN and WWTP-E-OUT, respectively) collected May 10 (as discussed in Report #63). The lower and upper bound PCDD/F TEQ concentrations in effluent discharged from the East WWTP (WWTP-E-OUT) on May 10 were 0.00525 pg/L and 2.78 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 1 – 7), West Sedimentation Pond effluent was directed to the TSS settling system (W500GPM) each day and clarified effluent was either recirculated to the pond, discharged to Howe Sound or reclaimed and used for construction purposes (refer to Section 1.2). The smaller TSS settling system (ESC) was not operational. Daily clarified effluent and discharge volumes from the west catchment are summarized in Appendix C, Table C-5.

Field measurements were collected June 1 – 7 at multiple influent and effluent locations, as outlined in Section 2, and are tabulated in Appendix C, Table C-4. Analytical samples collected June 1 (stations SP-W-IN and SP-W-OUT), June 3 (stations SP-W-IN and W500GPM-OUT) and June 4 (W500GPM-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.

At station SP-W-OUT, field measurements (June 1 and 6), and analytical results for the sample collected on June 1 met PE-111578 discharge limits and WQGs except for total zinc (Table 4). This exceedance is also tracked in Table 5.

**Table 4:**  
**Summary of Parameters Exceeding PE-111578 Discharge Limits in Effluent Discharged from SP-W-OUT for Field and Analytical Results Available at the Time of Reporting**

Parameter	Units	Discharge Limit	N	N > Limit	Commentary
Total Zinc	mg/L	0.0133	1	1	Total zinc measured at station SP-W-OUT on June 1 (0.0372 mg/L) was 2.8 times greater than the PE-111578 discharge limit. BCER has been notified.

N = number of samples.

During the monitoring period (June 1 – 7), field measurements and analytical results for samples collected at station W500GPM-OUT met PE-111578 discharge limits and WQGs except for methylmercury and total mercury on June 3 (Appendix C, Table C-3). Clarified effluent from the W500GPM system was recirculated to the pond June 3, and there was no discharge to Howe Sound that day.

Methylmercury results were available for West Sedimentation Pond influent (SP-W-IN) and clarified effluent from the W500GPM system (W500GPM-OUT) collected May 28 (as discussed in Report #66), for West Sedimentation Pond influent and effluent (stations SP-W-IN and SP-W-OUT, respectively) collected June 1 as well as for West Sedimentation Pond influent (SP-W-IN) and clarified effluent from the W500GPM system (W500GPM-OUT) collected June 3. Methylmercury and total mercury were above the WQGs in the W500GPM-OUT sample collected May 28; however, methylmercury and total mercury met WQGs in the effluent discharged at station SP-W-OUT on June 1 (Appendix C, Table C-3).

### **3.5 Non-Contact Water Diversion Ditch Outlets**

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

East Creek was temporarily diverted to OUT-11 on September 17 to facilitate replacement of the OUT-12 culvert through which East Creek previously discharged. Only East Creek water is flowing through the OUT-11 culvert. East Creek is monitored at freshwater receiving environment station SW-04 and station OUT-11 is not monitored while 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 May 20 and OUT-02 on May 19 (as discussed in Report #65). Methylmercury and total mercury concentrations were above their respective WQGs in the May 19 OUT-02 sample (Appendix D, Table D-1). Methylmercury and total mercury results are below the maximum concentrations (0.00041 and <0.010 µg/L, respectively) observed during baseline monitoring of diversion ditch water quality; however, there is a possibility of

project influence from site activities adjacent to the diversion ditch leading to OUT-02. Therefore, this will be further investigated and is tracked in Table 5.

### **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.

Methylmercury results were available at the time of reporting for freshwater and estuarine water samples collected near the mouth of Woodfibre Creek and East Creek (stations SW-01 and SW-04, respectively) on May 12 as well as 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 May 13 (as discussed in Report #64). The methylmercury concentrations met the WQG ( $0.0001 \mu\text{g/L}$ ) and ranged from  $<0.000020$  to  $<0.00010 \mu\text{g/L}$  in all of the samples collected from Mill Creek, East Creek, and Woodfibre Creek. The corresponding total mercury results also met WQGs. Results are tabulated in Appendix E, Table E-1 (freshwater) and Appendix F, Table F-1 (estuarine). A raised detection limit equal to the WQG value was reported for methylmercury ( $<0.00010 \mu\text{g/L}$ ) for the sample collected near the mouth of East Creek on May 12 due to sample matrix effects during testing.

Dioxin and furan results were reported for freshwater and estuarine water samples collected May 12 (stations SW-01 and SW-04) and May 13 (stations SW-02, SW03, and SW-07) (as discussed in Report #64). The lower and upper bound PCDD/F TEQ concentrations measured in these samples ranged from 0 to  $0.00348 \text{ pg/L}$  and  $0.534$  to  $2.25 \text{ pg/L}$ , respectively. 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-2 (freshwater) and Appendix F, Table F-2 (estuarine).

### **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 May 9 at IDZ-E1, IDZ-E2 and marine reference station WQR1 as well as on May 27 at IDZ-E1, IDZ-E2, IDZ-W1, IDZ-W2 and at 0.5 m below the water surface at marine reference stations WQR1 and WQR2 (as discussed in Report #66).

Parameter concentrations met WQGs except dissolved oxygen and total boron in some samples (Appendix G; Tables G-1 through G-5). In samples collected at 2 m above the seafloor at IDZ-E1, IDZ-E2 and marine reference station WQR1 on May 9 and at IDZ-W1 and IDZ-W2 on May 27, dissolved oxygen ranged from 6.02 to 7.09 mg/L and was below the lower limit of the WQG (8 mg/L). In all samples collected at IDZ and marine reference stations on May 9, with the exception of samples collected at 0.5 m below the water surface at IDZ-E1 and WQR1, total boron was above the WQG (1.2 mg/L) and ranged from 1.31 to 4.00 mg/L. Low concentrations of dissolved oxygen and elevated concentrations of total boron are indicative of influence from the deeper saline waters in the northern basin of Howe Sound and are a natural condition of marine water at the WDA monitoring stations. The dissolved oxygen and total boron concentrations observed at the IDZ monitoring stations are within concentrations that have been observed in the pre-construction baseline monitoring program or within background ranges observed at marine reference stations and are therefore not attributed to project influence.

Methylmercury analytical results were available at the time of reporting for marine samples collected from 0.5 and 2 m below the water surface and 2 m above the seafloor on May 9 at IDZ-E1, IDZ-E2 and marine reference station WQR1 (as discussed in Report #63). For all samples, methylmercury concentrations ranged from <0.000020 to <0.00010 µg/L. Methylmercury results met the WQG and the corresponding total mercury results also met WQGs (Appendix G, Table G-6). A raised detection limit was reported for methylmercury (<0.00010 µg/L) for the sample collected at 2 m above the seafloor at IDZ-E2 on May 9 due to sample matrix effects during testing; however, the raised detection limit is equal to the WQG (Section 3.1).

Dioxins and furans analytical results were available at the time of reporting for marine samples collected from 0.5 and 2 m below the water surface and 2 m above the seafloor at stations IDZ-E1, IDZ-E2 and marine reference station WQR1 on May 9 (as discussed in Report #63). For all samples, the lower and upper bound PCDD/F TEQ concentrations ranged from 0 to 0.0181 pg/L, and 0.618 to 0.960 pg/L, respectively. The lower and upper bound PCDD/F TEQ concentrations were within the concentration ranges observed in the baseline monitoring program or within background ranges observed at marine reference stations. Results are tabulated in Appendix E, Table G-7.

#### **4. Quality Control**

This section presents the results of the quality control (QC) evaluation for the PE-111578 weekly report (Table 5). The evaluation includes a review of field and lab QC, completeness of the weekly report (*e.g.*, pending data), completeness of the monitoring program, confirmation of recordkeeping, evaluation of compliance and review of water management activities. Items flagged for follow-up in Section 3 are also tracked in Table 5. Any items flagged for follow-up are carried forward to future reports until they are closed.

Table 5: Weekly Report QC Evaluations and Ongoing Items

QC Procedure	Observation	Investigation/Resolution
Reporting Period (June 1 – 7, Report #67)		
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.
Non-complaint Effluent	Total zinc exceeded discharge limits.	Non-compliant effluent was discharged from SP-W-OUT on June 1, with total zinc (0.0372 mg/L) 2.8 times above the discharge limit. BCER has been notified. Review of the non-compliance is underway. This item remains open.
WQG Evaluation	Total mercury and methylmercury above WQG.	<p><u>Report #62</u>: 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.</p> <p><u>Report #65</u>: 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.</p> <p><u>Report#66</u>: 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 &lt;0.000020 and 0.000030 ug/L, respectively.</p> <p><u>Report #67</u>: Methylmercury and total mercury measured at non-contact water diversion ditch station OUT-02 on May 19 (0.000213 and 0.00319µg/L, respectively) were above the WQGs but below baseline maximum values (0.00041 and &lt;0.010 µg/L, respectively) for diversion ditch samples, suggesting there is background influence. The sample will be retested. A review of site activities that may have influenced the sample will also be conducted.</p> <p>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 issues with 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 will be undertaken. Baseline monitoring of diversion ditch water suggests there may be non-project influences on the concentration of mercury in diversion ditch waters. The diversion ditch sample collected May 19 (Report #67) also suggests a non-project source (to be confirmed). Further evaluation of potential sources is ongoing. This item remains open.</p>
Pending Data	Analytical results not reported.	Analytical results and field parameters for non-contact diversion ditch samples and receiving environment samples collected June 1, 2, 3, and 6 were not included with Report #67. Analytical results for the treated water sample collected June 6 were not included with Report #67. Dioxins and furans results for contact water and treated water samples collected June 1 and June 3 were not included with Report #67. The pending results will be included in future weekly reports when available. 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 #67. The pending results will be included in future weekly reports when available. This item remains open.
Report #62: WWTP Performance Evaluation	Field pH, total copper, total mercury, total zinc, and hexavalent Cr above the MDO.	<p>This item was first noted in Report #46 (January 8 sample) and has been updated with January 14 results (Report #47), January 24 and January 28 results (Report #49), February 5 and 6 results (Report #50), February 10 results (Report #51), February 15 and 20 results (Report #52), February 24 results (Report #53), March 8 results (Report #55), March 17 results (Report #56), April 24 results (Reports #61 and #62), May 3 results (Report #63), May 10 results (Report #64), May 14 results (Report #64 and #65), May 22 results (Report #65 and #66), and June 3 results (Report #67). The total copper concentrations were 0.00809, 0.00595, 0.00895, 0.00518, 0.00542, 0.00525, 0.00450, 0.00734, 0.00464, and 0.00462 mg/L in samples collected at WWTP-E-OUT on January 8, 14, 24, 28, February 24, March 8, 17, April 24, May 10, and June 3, respectively, and ranged from 0.00613 to 0.0108 mg/L in four replicate samples collected on February 15. The total mercury concentrations were 0.0355, 0.185, 0.223, 0.0882, 0.0101, 0.0269, 0.0524, 0.0404, 0.0217, and 0.0167 µg/L in samples collected on January 24, 30, February 20, 24, April 24, May 3, May 10, May 14, May 22, and June 3, respectively, and were 0.0615 and 0.0644 mg/L in two replicate samples collected February 15. The total zinc concentrations were 0.0137, 0.0152, and 0.0156 mg/L in the samples collected on January 24, February 20 and 24, and were 0.0223 and 0.0234 mg/L in two of four replicate samples collected February 15. Hexavalent chromium concentrations were 0.00197 and 0.00166 mg/L in samples collected January 24 and 28 at WWTP-E-OUT. Field pH was 9.1, 9.2, and 9.6 in samples collected at WWTP-E-OUT on February 5, 6 and 10, respectively.</p> <p>As of June 3, and since February/March, field pH and total metals have been consistently meeting MDOs except total copper (April/May/June) and total mercury (April/May/June). The WWTP is not designed to treat mercury, therefore possible contact water sources have been evaluated and a point source has not been identified. A separate table entry for methylmercury was added in Report #67 and will no longer be discussed in this entry. Treatment performance for total copper continues to be monitored; the metal removal media was replaced on June 5 and the fresh media is expected to improve copper removal. This item remains open for total copper</p>
Report #62: Discharge WQG Evaluation	Total mercury and methylmercury above WQG.	Total mercury and methylmercury measured at station SP-E-OUT on April 24 (0.00851 and 0.000264 µg/L, respectively) were 2.6 times greater than the calculated WQG. Potential sources are being reviewed. This item remains open.
Report #63: Pending Data	Analytical results not reported.	Field parameters and analytical results for receiving environment samples collected May 9 are discussed in Section 3.7 of Report #67. Dioxins and furans results for contact water and treated water samples collected May 10 are discussed in Section 3.3 of Report #67. This item is closed.
Report #64: Pending Data	Analytical results not reported.	Methylmercury, dioxins and furans results for receiving environment samples collected May 12 and 13 are discussed in Section 3.6 of Report #67. Dioxins and furans results for contact water and treated water samples collected May 15 were not included with Report #67. The pending results will be included in future weekly reports when available. This item remains open.
Report #65: Discharge WQG Evaluation	Total mercury and methylmercury above WQG.	Total mercury (0.00821 and 0.00825 µg/L) and methylmercury (0.000149 and 0.000158 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. Potential sources are being reviewed. This item remains open.
Report #65: Potential Project Influence	Hexavalent chromium at East Creek above WQG and the baseline concentration range.	Hexavalent chromium concentration (0.00212 mg/L) observed at the East Creek station (SW-04) on May 12 was 2.1 times greater than the WQG and 6.8 times greater than the maximum concentration observed in the pre-construction baseline monitoring program (0.00031 mg/L). Potential influences to East Creek water quality at station SW-04 are being reviewed. This item remains open.
Report #65: Pending Data	Analytical results not reported.	Methylmercury results for diversion ditch outlet samples collected May 19 and 20 are discussed in Section 3.5 of Report #67. Dioxins and furans results for contact water and treated water samples collected May 19 and May 22 were not included with Report #67. The pending results will be included in future weekly reports when available. This item remains open.
Report #66: Pending Data	Analytical results not reported.	Analytical results and field parameters for receiving environment samples collected May 27 are discussed in Section 3.7 of Report #67. Methylmercury results for contact water and treated water samples collected May 28, 29, and 30 are discussed in Sections 3.3 and 3.4 of Report #67. Chronic toxicity results for receiving environment samples collected May 27 and dioxins and furans results for contact water and treated water samples collected May 28, 29, and 30 were not included with Report #67. The pending results will be included in future weekly reports when available. This item remains open.
Report #66: Data QC	Methylmercury results in marine environment samples above WQG.	The 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 below the WQG for samples collected at 2 m below surface and at 2 m above the seafloor at IDZ-W1 on May 7 (<0.000020 and 0.000030 ug/L, respectively). This item is closed.

Notes:

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

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

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

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

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

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

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



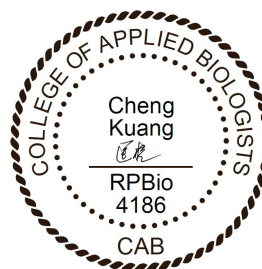
## 5. Closure

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

Regards,

**LORAX ENVIRONMENTAL SERVICES LTD.**

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



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



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

## ***Appendix A: Figures and Site Images***



World Imagery: District of Squamish. Additional imagery provided by McDermott International captured April 28th, 2025.

#### LEGEND

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

DATE SAVED: Jun 06, 2025  
DRAWN BY: DM  
REVIEWED: PM  
VERSION: 1

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

1:6,000

0 50 100 150 Metres

CLIENT:



PROJECT:

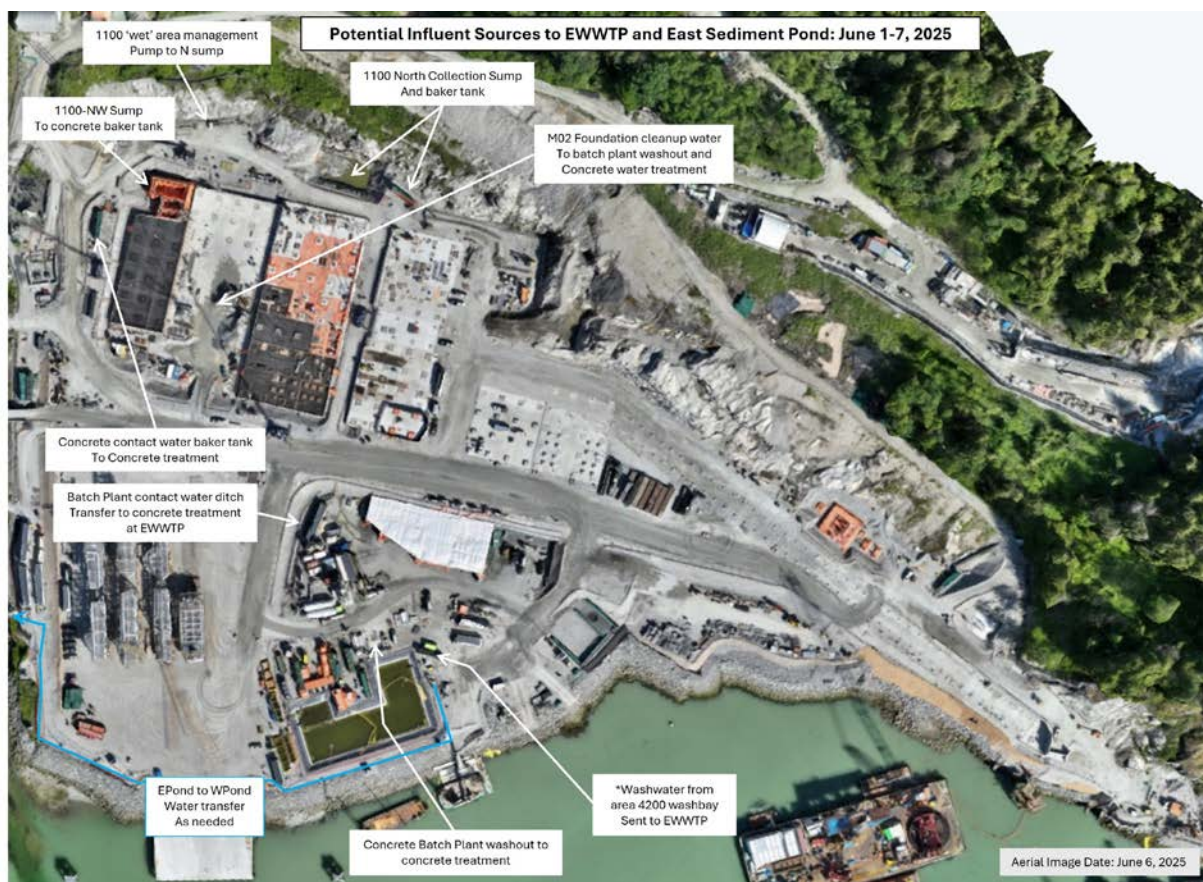
### Woodfibre LNG Project Construction Phase

TITLE: Water Management Facilities and Established PE-111578 Monitoring Stations (May 31, 2025)

PROJECT #: A633-7

FIGURE: 1





**Figure 2: East Catchment contact water management facilities (June 1 – 7).**



**Figure 3: West Catchment contact water management facilities (June 1 – 7).**





**Figure 4:** Aerial view of the East Sedimentation Pond (June 6, 2025). The East WWT is located on the left side and the E500GPM TSS settling system is situated along the bottom edge of the pond.



**Figure 5:** Aerial view of the West Sedimentation Pond (June 6, 2025). The TSS settling systems are located to the left (W500GPM) and right (ESC) of the pond.

## ***Appendix B: East Catchment Monitoring Results***

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

Parameter	Unit	Lowest Applicable Guideline <sup>1</sup>		PE-111578 Discharge Limit	Station SP-E-IN	Station WWTP-E-IN
					Influent	Influent
					SP-E-IN	WWTP-E-IN
					VA25B3035-007	VA25B3035-005
		Long Term	Short Term		2025-06-03 13:47	2025-06-03 14:15
General Parameters						
pH - Field	pH units	- <sup>2</sup>	-	5.5 - 9.0	7.1	7.5
Specific Conductivity - Field	µS/cm	-	-	-	1806	1814
Temperature - Field	°C	-	-	-	20.4	22.5
Salinity - Field	ppt	-	-	-	0.92	0.92
Turbidity - Field	NTU	-	-	-	32.48	19.57
TSS	mg/L	-	-	25 or 75 <sup>6</sup>	17.3	17.1
Dissolved Oxygen - Field	mg/L	≥8	-	-	9.06	9.99
Anions and Nutrients						
Sulphate	mg/L	-	-	-	356	658
Chloride	mg/L	-	-	-	13.3	22
Fluoride	mg/L	-	1.5	-	0.388	0.358
Ammonia (N-NH <sub>3</sub> )	mg/L	3.7-9.4 <sup>3</sup>	25-62 <sup>3</sup>	-	0.0174	<0.0050
Nitrite (N-NO <sub>2</sub> )	mg/L	-	-	-	<0.0050	<0.0100
Nitrate (N-NO <sub>3</sub> )	mg/L	3.7	339	-	0.143	<0.0500
Total Metals						
Aluminum, total (T-Al)	mg/L	-	-	-	1.65	1.05
Antimony, total (T-Sb)	mg/L	-	0.27 <sup>4</sup>	-	0.00104	0.00127
Arsenic, total (T-As)	mg/L	0.0125	0.0125	-	0.0043	0.00293
Barium, total (T-Ba)	mg/L	-	-	-	0.0226	0.0166
Beryllium, total (T-Be)	mg/L	0.1	-	-	0.000031	<0.000040
Boron, total (T-B)	mg/L	1.2	-	-	0.106	0.108
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000600	<0.0000450
Chromium, total (T-Cr)	mg/L	-	-	-	0.0025	0.00217
Cobalt, total (T-Co)	mg/L	-	-	-	0.00047	0.00031
Copper, total (T-Cu)	mg/L	- <sup>2</sup>	- <sup>2</sup>	0.0043	0.0056	0.00437
Iron, total (T-Fe)	mg/L	-	-	-	1.24	0.853
Lead, total (T-Pb)	mg/L	- <sup>2</sup>	- <sup>2</sup>	0.0035	0.00166	0.0013
Manganese, total (T-Mn)	mg/L	-	-	-	0.0463	0.0509
Mercury, total (T-Hg)	mg/L	0.000016 <sup>5</sup>	-	-	0.0000427	0.0000486
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.119	0.131
Nickel, total (T-Ni)	mg/L	0.0083	-	-	0.00107	0.00179
Selenium, total (T-Se)	mg/L	0.002	-	-	0.000497	0.000524
Silver, total (T-Ag)	mg/L	0.0005	0.0037	-	<0.000010	<0.000020
Thallium, total (T-Tl)	mg/L	-	-	-	0.00003	0.000052
Uranium, total (T-U)	mg/L	-	-	-	0.0534	0.0271
Vanadium, total (T-V)	mg/L	- <sup>2</sup>	-	0.0081	0.00647	0.00437
Zinc, total (T-Zn)	mg/L	- <sup>2</sup>	- <sup>2</sup>	0.0133	0.0063	0.0251
Hexavalent Chromium, total	mg/L	0.0015	-	-	0.00064	<0.00050
Dissolved Metals						
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000350	<0.0000050
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00291	0.00179
Iron, dissolved (D-Fe)	mg/L	-	-	-	0.013	0.025
Lead, dissolved (D-Pb)	mg/L	-	-	-	<0.000050	0.000052
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.0124	0.031
Nickel, dissolved (D-Ni)	mg/L	-	-	-	0.00055	0.00081
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.167	0.198
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00422	0.00300
Zinc, dissolved (D-Zn)	mg/L	-	-	-	<0.0010	0.0124
Polycyclic Aromatic Hydrocarbons (PAHs)						
Acenaphthene	mg/L	0.006	-	-	<0.000010	<0.000010
Acridine	mg/L	-	-	-	<0.000010	<0.000010
Anthracene	mg/L	-	-	-	<0.000010	<0.000010
Benz(a)anthracene	mg/L	-	-	-	<0.000010	<0.000010
Benzo(a)pyrene	mg/L	0.00001	-	-	<0.0000050	<0.0000050
Chrysene	mg/L	0.0001	-	-	<0.000010	<0.000010
Fluoranthene	mg/L	-	-	-	<0.000010	<0.000010
Fluorene	mg/L	0.012	-	-	<0.000010	<0.000010
1-methylnaphthalene	mg/L	0.001	-	-	<0.000010	<0.000010
2-methylnaphthalene	mg/L	0.001	-	-	<0.000010	<0.000010
Naphthalene	mg/L	0.001	-	-	<0.000050	<0.000050
Phenanthrene	mg/L	-	-	-	<0.000020	<0.000020
Pyrene	mg/L	-	-	-	<0.000010	<0.000010
Quinoline	mg/L	-	-	-	<0.000050	<0.000050
Volatile Organic Compounds (VOCs)						
Benzene	mg/L	0.11	-	-	<0.00050	<0.00050
Ethylbenzene	mg/L	0.25	-	-	<0.00050	<0.00050
Methyl-tert-butyl-ether	mg/L	5	0.44	-	<0.00050	<0.00050
Styrene	mg/L	-	-	-	<0.00050	<0.00050
Toluene	mg/L	0.215	-	-	<0.00040	<0.00040
Total Xylenes	mg/L	-	-	-	<0.00050	<0.00050
Chlorobenzene	mg/L	0.025	-	-	<0.00050	<0.00050
1,2-Dichlorobenzene	mg/L	0.042	-	-	<0.00050	<0.00050

**Notes:**  
Results **underlined in bold italics** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.  
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.  
Results in orange text exceeded the PE-111578 East Sedimentation Pond Discharge Limit.  
The East Catchment did not discharge during the monitoring period (June 1 - 7).  
<sup>1</sup> The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.  
<sup>2</sup> The WQG was not evaluated for parameters with discharge limits.  
<sup>3</sup> The BC WQG for total ammonia is salinity, pH and temperature dependent; see Tables 27E and 27F in BC WQG guidance document.  
<sup>4</sup> The working BC WQG for trivalent antimony [SB(III)] is 0.27 mg/L and is applied to total antimony results.  
<sup>5</sup> When MeHg ≤0.5% of total Hg, the BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.  
<sup>6</sup> 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 <sup>1</sup>		PE-111578 Discharge Limit	Station
					WWTP-E-OUT
		Long Term	Short Term		Effluent
					WWTP-E-OUT VA25B3035-006 2025-06-03 14:22
General Parameters					
pH - Field	pH units	- <sup>2</sup>	-	5.5 - 9.0	6.7
Specific Conductivity - Field	µS/cm	-	-	-	2131
Temperature - Field	°C	-	-	-	19.2
Salinity - Field	ppt	-	-	-	1.09
Turbidity - Field	NTU	-	-	-	1.76
TSS	mg/L	-	-	25 or 75 <sup>6</sup>	<3.0
Dissolved Oxygen - Field	mg/L	≥8	-	-	7.19
Anions and Nutrients					
Sulphate	mg/L	-	-	-	756
Chloride	mg/L	-	-	-	19.2
Fluoride	mg/L	-	1.5	-	<0.400
Ammonia (N-NH <sub>3</sub> )	mg/L	14 <sup>3</sup>	92 <sup>3</sup>	-	0.0638
Nitrite (N-NO <sub>2</sub> )	mg/L	-	-	-	<0.0200
Nitrate (N-NO <sub>3</sub> )	mg/L	3.7	339	-	<0.100
Total Metals					
Aluminum, total (T-Al)	mg/L	-	-	-	0.278
Antimony, total (T-Sb)	mg/L	-	0.27 <sup>4</sup>	-	0.00134
Arsenic, total (T-As)	mg/L	0.0125	0.0125	-	0.00265
Barium, total (T-Ba)	mg/L	-	-	-	0.00774
Beryllium, total (T-Be)	mg/L	0.1	-	-	<0.000040
Boron, total (T-B)	mg/L	1.2	-	-	0.211
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000450
Chromium, total (T-Cr)	mg/L	-	-	-	<0.00100
Cobalt, total (T-Co)	mg/L	-	-	-	<0.00020
Copper, total (T-Cu)	mg/L	- <sup>2</sup>	- <sup>2</sup>	0.0043	0.00462
Iron, total (T-Fe)	mg/L	-	-	-	0.026
Lead, total (T-Pb)	mg/L	- <sup>2</sup>	- <sup>2</sup>	0.0035	0.000269
Manganese, total (T-Mn)	mg/L	-	-	-	0.00675
Mercury, total (T-Hg)	mg/L	0.000016 <sup>5</sup>	-	-	0.0000167
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.17
Nickel, total (T-Ni)	mg/L	0.0083	-	-	<0.00100
Selenium, total (T-Se)	mg/L	0.002	-	-	0.000835
Silver, total (T-Ag)	mg/L	0.0005	0.0037	-	<0.000020
Thallium, total (T-Tl)	mg/L	-	-	-	0.000027
Uranium, total (T-U)	mg/L	-	-	-	0.0137
Vanadium, total (T-V)	mg/L	- <sup>2</sup>	-	0.0081	0.00425
Zinc, total (T-Zn)	mg/L	- <sup>2</sup>	- <sup>2</sup>	0.0133	0.0063
Hexavalent Chromium, total	mg/L	0.0015	-	-	<0.00050
Dissolved Metals					
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000400
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00191
Iron, dissolved (D-Fe)	mg/L	-	-	-	<0.020
Lead, dissolved (D-Pb)	mg/L	-	-	-	<0.000100
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.00636
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00100
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.155
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00402
Zinc, dissolved (D-Zn)	mg/L	-	-	-	0.0040
Polycyclic Aromatic Hydrocarbons (PAHs)					
Acenaphthene	mg/L	0.006	-	-	<0.000010
Acridine	mg/L	-	-	-	<0.000010
Anthracene	mg/L	-	-	-	<0.000010
Benz(a)anthracene	mg/L	-	-	-	<0.000010
Benzo(a)pyrene	mg/L	0.00001	-	-	<0.0000050
Chrysene	mg/L	0.0001	-	-	<0.000010
Fluoranthene	mg/L	-	-	-	<0.000010
Fluorene	mg/L	0.012	-	-	<0.000010
1-methylnaphthalene	mg/L	0.001	-	-	<0.000010
2-methylnaphthalene	mg/L	0.001	-	-	<0.000010
Naphthalene	mg/L	0.001	-	-	<0.000050
Phenanthrene	mg/L	-	-	-	<0.000020
Pyrene	mg/L	-	-	-	<0.000010
Quinoline	mg/L	-	-	-	<0.000050
Volatile Organic Compounds (VOCs)					
Benzene	mg/L	0.11	-	-	<0.00050
Ethylbenzene	mg/L	0.25	-	-	<0.00050
Methyl-tert-butyl-ether	mg/L	5	0.44	-	<0.00050
Styrene	mg/L	-	-	-	<0.00050
Toluene	mg/L	0.215	-	-	<0.00040
Total Xylenes	mg/L	-	-	-	<0.00050
Chlorobenzene	mg/L	0.025	-	-	<0.00050
1,2-Dichlorobenzene	mg/L	0.042	-	-	<0.00050

**Notes:**  
Results **underlined in bold italics** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.  
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.  
Results in orange text exceeded the PE-111578 East Sedimentation Pond Discharge Limit.  
The East Catchment did not discharge during the monitoring period (June 1 - 7).  
<sup>1</sup> The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.  
<sup>2</sup> The WQG was not evaluated for parameters with discharge limits.  
<sup>3</sup> The BC WQG for total ammonia is salinity, pH and temperature dependent; see Tables 27E and 27F in BC WQG guidance document.  
<sup>4</sup> The working BC WQG for trivalent antimony [SB(III)] is 0.27 mg/L and is applied to total antimony results.  
<sup>5</sup> When MeHg ≤0.5% of total Hg, the BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.  
<sup>6</sup> 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 <sup>1</sup>					0.0001 <sup>2</sup>	0.0040 – 0.019 <sup>3,4</sup>
Station	Water Type	Sample ID	Lab ID	Sampling Date		
Influent						
SP-E-IN	Influent	SP-E-IN	VA25B2668-004	2025-05-29	<u><i>0.000607</i></u>	<u><i>0.0470</i></u>
SP-E-IN	Influent	SP-E-IN	VA25B3035-007	2025-06-03	<u><i>0.000356</i></u>	<u><i>0.0427</i></u>
WWTP-E-IN	Influent	WWTP-E-IN	VA25B2819-001	2025-05-30	<u><i>0.000789</i></u>	<u><i>0.0314</i></u>
WWTP-E-IN	Influent	WWTP-E-IN	VA25B3035-005	2025-06-03	<u><i>0.000820</i></u>	<u><i>0.0486</i></u>
Effluent						
WWTP-E-OUT	Effluent	WWTP-E-OUT	VA25B2819-002	2025-05-30	<u><i>0.000256</i></u> <sup>5</sup>	<u><i>0.0478</i></u> <sup>5</sup>
WWTP-E-OUT	Effluent	WWTP-E-OUT	VA25B3035-006	2025-06-03	<u><i>0.000181</i></u> <sup>5</sup>	<u><i>0.0167</i></u> <sup>5</sup>
E500GPM-OUT	Effluent	E500GPM-OUT	VA25B2668-001	2025-05-29	<u><i>0.000414</i></u> <sup>6</sup>	<u><i>0.0277</i></u> <sup>6</sup>

**Notes:**  
Results *underlined in bold italics* exceed the applicable long-term water quality guideline for the protection of marine aquatic life.  
<sup>1</sup> The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.  
<sup>2</sup> 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.  
<sup>3</sup> CCME guideline for total mercury = 0.016 µg/L.  
<sup>4</sup> 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.  
<sup>5</sup> East WWTP treated effluent is directed to the East Sedimentation Pond and there was no discharge from the pond to Howe Sound on May 30 nor on June 3.  
<sup>6</sup> E500GPM clarified effluent is directed to the East Sedimentation Pond and there was no discharge from the pond to Howe Sound on May 29.  
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						
SP-E-IN	Influent	SP-E-IN	VA25B0827-001	2025-05-10	0.000882	1.58
WWTP-E-IN	Influent	WWTP-E-IN	VA25B0827-002	2025-05-10	0.133	2.15
Effluent						
WWTP-E-OUT	Effluent	WWTP-E-OUT	VA25B0827-003	2025-05-10	0.00525	2.78

**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 1 – 7).

Parameter			Temp.	Dissolved Oxygen (DO)	Salinity	Turbidity	Estimated TSS <sup>3</sup>	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 <sup>6</sup>	5.5 - 9.0	-	-
Lowest Applicable Guideline <sup>1</sup>			-	≥8	-	-	- <sup>2</sup>	- <sup>2</sup>	-	-
Station ID	Water Type	Date								
Influent <sup>4</sup>										
SP-E-IN	Influent	2025-06-01 9:51	16.1	10.69	0.87	22.94	20.1	7.2	1716	No
SP-E-IN	Influent	2025-06-02 13:27	19.8	10.65	0.89	12.16	12.1	7.0	1758	No
SP-E-IN	Influent	2025-06-03 13:47	20.4	9.06	0.92	32.48	27.2	7.1	1806	No
SP-E-IN	Influent	2025-06-04 14:18	20.8	9.54	0.98	10.54	10.9	6.6	1921	No
SP-E-IN	Influent	2025-06-05 9:38	19.8	11.36	1.07	7.23	8.4	6.9	2090	No
SP-E-IN	Influent	2025-06-06 16:19	22.4	8.58	1.14	27.05	23.2	7.3	2225	No
SP-E-IN	Influent	2025-06-07 9:34	21.2	8.44	0.92	8.46	9.3	7.7	1817	No
WWTP-E-IN	Influent	2025-06-01 15:05	18.7	11.50	0.89	19.00	17.2	7.3	1744	No
WWTP-E-IN	Influent	2025-06-02 12:52	19.8	11.07	0.9	16.28	15.1	7.1	1779	No
WWTP-E-IN	Influent	2025-06-03 14:15	22.5	9.99	0.92	19.57	17.6	7.5	1814	No
WWTP-E-IN	Influent	2025-06-04 14:10	21.7	10.76	0.99	7.24	8.4	7.0	1949	No
WWTP-E-IN	Influent	2025-06-06 16:08	25.0	13.03	1.11	5.16	6.8	7.3	2181	No
WWTP-E-IN	Influent	2025-06-07 9:38	21.8	8.25	1.09	6.01	7.5	7.2	2121	No
E500GPM-IN	Influent	2025-06-01 9:48	15.5	10.75	0.86	28.86	24.5	7.5	1694	No
E500GPM-IN	Influent	2025-06-02 13:24	20.0	10.55	0.90	11.33	11.4	7.4	1777	No
Effluent <sup>5</sup>										
WWTP-E-OUT	Effluent	2025-06-01 14:57	17.9	9.54	1.01	1.53	4.1	7.9	1969	No
WWTP-E-OUT	Effluent	2025-06-02 12:47	17.8	9.26	0.96	2.65	5.0	6.4	1885	No
WWTP-E-OUT	Effluent	2025-06-03 14:22	19.2	7.19 <sup>7</sup>	1.09	1.76	4.3	6.7	2131	No
WWTP-E-OUT	Effluent	2025-06-04 14:13	20.2	8.56	0.96	2.33	4.7	6.4	1889	No
WWTP-E-OUT	Effluent	2025-06-06 16:14	20.2	5.43 <sup>7</sup>	1.03	4.91	6.7	7.2	2019	No
WWTP-E-OUT	Effluent	2025-06-07 9:40	21.4	4.18 <sup>7</sup>	1.37	0.85	3.6	6.5	2639	No
E500GPM-OUT	Effluent	2025-06-01 9:40	16.1	10.87	0.86	6.62	7.9	7.7	1690	No
E500GPM-OUT	Effluent	2025-06-02 13:22	19.7	11.03	0.90	3.44	5.6	7.5	1770	No

**Notes:**  
Results *underlined in bold italics* exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.  
**Shaded** results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.  
Results in orange text exceeded the PE-111578 East Sedimentation Pond Discharge Limit.  
<sup>1</sup> The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.  
<sup>2</sup> The WQG was not evaluated for parameters with discharge limits.  
<sup>3</sup> TSS concentration is estimated from field turbidity measurements using a site-specific relationship TSS = 0.7458 \* [turbidity as NTU] + 3.  
<sup>4</sup> Daily field measurements for station SP-E-IN were collected from cell 1 of the East Sedimentation Pond. Daily field measurements for station WWTP-E-IN were not collected on June 5 as the East WWTP was not active on that day.  
<sup>5</sup> There was no discharge at the authorized discharge location (SP-E-OUT) during the monitoring period (June 1 - 7), therefore daily field measurements for SP-E-OUT were not collected on those days. Daily field parameters were not collected on June 5 from station WWTP-E-OUT as the East WWTP was not active on that day.  
<sup>6</sup> The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for each day of Wet Conditions.  
<sup>7</sup> 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 1 - 7).

Table B-6: East Catchment Daily Discharge Volumes for the Monitoring Period (June 1 – 7).

	East Sedimentation Pond Effluent	Transfer to West Sedimentation Pond	East TSS Settling System (E500GPM) Clarified Effluent (Station E500GPM-OUT)	East WWTP Treated Effluent (Station WWTP-E-OUT)	Discharge to Howe Sound (Station SP-E-OUT)
Unit	m <sup>3</sup>	m <sup>3</sup>	m <sup>3</sup>	m <sup>3</sup>	m <sup>3</sup>
PE-111578 Discharge Limit	- <sup>1</sup>	- <sup>1</sup>	- <sup>1</sup>	1100	- <sup>1</sup>
Date					
2025-06-01	0	0	1,711 <sup>2</sup>	659 <sup>3</sup>	0
2025-06-02	0	744	1,453 <sup>2</sup>	430 <sup>3</sup>	0
2025-06-03	0	0	528 <sup>2</sup>	348 <sup>3</sup>	0
2025-06-04	0	0	0	393 <sup>3</sup>	0
2025-06-05	0	0	0	0	0
2025-06-06	0	0	0	291 <sup>3</sup>	0
2025-06-07	0	971	0	368 <sup>3</sup>	0

**Notes:**  
Results in orange text exceeded the PE-111578 East Sedimentation Pond Discharge Limit.  
<sup>1</sup> The annual average authorized discharge rate from the East Sedimentation Pond is 650 m<sup>3</sup>/day. As noted in PE-111578 Condition 2.1.4, the actual discharge rate may deviate from the annual average rate due to annual variations in precipitation amounts within the catchment area. Therefore, the annual average authorized discharge rate is not evaluated as a discharge limit.  
<sup>2</sup> E500GPM clarified effluent is discharged to Howe Sound or recirculated to the East Sedimentation Pond based on operational considerations. Therefore, the E500GPM clarified effluent volume is generally higher than the volume discharged to Howe Sound. The E500GPM was operational during the monitoring period (June 1 - 7) on June 1, 2, and 3.  
<sup>3</sup> 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 <sup>1</sup>		PE-111578 Discharge Limit	Station SP-W-IN	Station SP-W-IN
					Influent	Influent
					SP-W-IN	SP-W-IN
		VA25B2858-001	VA25B3035-001			
		Long Term	Short Term		2025-06-01 14:30	2025-06-03 10:36
General Parameters						
pH - Field	pH units	- <sup>2</sup>	-	5.5 - 9.0	8.3	8.1
Specific Conductivity - Field	µS/cm	-	-	-	1215	1447
Temperature - Field	°C	-	-	-	20.0	20.3
Salinity - Field	ppt	-	-	-	0.61	0.73
Turbidity - Field	NTU	-	-	-	48.22	33.69
TSS	mg/L	-	-	25 or 75 <sup>6</sup>	17.7	13.9
Dissolved Oxygen - Field	mg/L	≥8	-	-	9.93	9.37
Anions and Nutrients						
Sulphate	mg/L	-	-	-	368	494
Chloride	mg/L	-	-	-	16.7	17.1
Fluoride	mg/L	-	1.5	-	0.247	0.26
Ammonia (N-NH <sub>3</sub> )	mg/L	0.62-0.97 <sup>3</sup>	4.2-6.4 <sup>3</sup>	-	0.025	0.0085
Nitrite (N-NO <sub>2</sub> )	mg/L	-	-	-	<0.0050	<0.0050
Nitrate (N-NO <sub>3</sub> )	mg/L	3.7	339	-	0.0569	<0.0250
Total Metals						
Aluminum, total (T-Al)	mg/L	-	-	-	1.1	0.725
Antimony, total (T-Sb)	mg/L	-	0.27 <sup>4</sup>	-	0.00102	0.00111
Arsenic, total (T-As)	mg/L	0.0125	0.0125	-	0.00163	0.00153
Barium, total (T-Ba)	mg/L	-	-	-	0.0127	0.00952
Beryllium, total (T-Be)	mg/L	0.1	-	-	0.000021	<0.000020
Boron, total (T-B)	mg/L	1.2	-	-	0.018	0.044
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000200	<0.0000150
Chromium, total (T-Cr)	mg/L	-	-	-	0.00065	0.00085
Cobalt, total (T-Co)	mg/L	-	-	-	0.0003	0.0002
Copper, total (T-Cu)	mg/L	- <sup>2</sup>	- <sup>2</sup>	0.0043	0.00221	0.00218
Iron, total (T-Fe)	mg/L	-	-	-	0.779	0.568
Lead, total (T-Pb)	mg/L	- <sup>2</sup>	- <sup>2</sup>	0.0035	0.00146	0.00118
Manganese, total (T-Mn)	mg/L	-	-	-	0.0312	0.0207
Mercury, total (T-Hg)	mg/L	0.000016 <sup>5</sup>	-	-	0.00000498	0.00000864
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.0908	0.107
Nickel, total (T-Ni)	mg/L	0.0083	-	-	<0.00050	<0.00050
Selenium, total (T-Se)	mg/L	0.002	-	-	0.000288	0.000458
Silver, total (T-Ag)	mg/L	0.0005	0.0037	-	<0.000010	<0.000010
Thallium, total (T-Tl)	mg/L	-	-	-	0.000028	0.00003
Uranium, total (T-U)	mg/L	-	-	-	0.0217	0.0208
Vanadium, total (T-V)	mg/L	- <sup>2</sup>	-	0.0081	0.0029	0.00264
Zinc, total (T-Zn)	mg/L	- <sup>2</sup>	- <sup>2</sup>	0.0133	0.0055	0.0042
Hexavalent Chromium, total	mg/L	0.0015	-	-	<0.00050	<0.00050
Dissolved Metals						
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000050	<0.0000100
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00099	0.00104
Iron, dissolved (D-Fe)	mg/L	-	-	-	<0.010	0.015
Lead, dissolved (D-Pb)	mg/L	-	-	-	<0.000050	0.000064
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.00127	0.0021
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00050	<0.00050
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.127	0.165
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00153	0.00170
Zinc, dissolved (D-Zn)	mg/L	-	-	-	<0.0010	<0.0010
Polycyclic Aromatic Hydrocarbons (PAHs)						
Acenaphthene	mg/L	0.006	-	-	<0.000010	<0.000010
Acridine	mg/L	-	-	-	<0.000010	<0.000010
Anthracene	mg/L	-	-	-	<0.000010	<0.000010
Benz(a)anthracene	mg/L	-	-	-	<0.000010	<0.000010
Benzo(a)pyrene	mg/L	0.00001	-	-	<0.0000050	<0.0000050
Chrysene	mg/L	0.0001	-	-	<0.000010	<0.000010
Fluoranthene	mg/L	-	-	-	<0.000010	<0.000010
Fluorene	mg/L	0.012	-	-	<0.000010	<0.000010
1-methylnaphthalene	mg/L	0.001	-	-	<0.000010	<0.000010
2-methylnaphthalene	mg/L	0.001	-	-	<0.000010	<0.000010
Naphthalene	mg/L	0.001	-	-	<0.000050	<0.000050
Phenanthrene	mg/L	-	-	-	<0.000020	<0.000020
Pyrene	mg/L	-	-	-	<0.000010	<0.000010
Quinoline	mg/L	-	-	-	<0.000050	<0.000050
Volatile Organic Compounds (VOCs)						
Benzene	mg/L	0.11	-	-	<0.00050	<0.00050
Ethylbenzene	mg/L	0.25	-	-	<0.00050	<0.00050
Methyl-tert-butyl-ether	mg/L	5	0.44	-	<0.00050	<0.00050
Styrene	mg/L	-	-	-	<0.00050	<0.00050
Toluene	mg/L	0.215	-	-	<0.00040	<0.00040
Total Xylenes	mg/L	-	-	-	<0.00050	<0.00050
Chlorobenzene	mg/L	0.025	-	-	<0.00050	<0.00050
1,2-Dichlorobenzene	mg/L	0.042	-	-	<0.00050	<0.00050

**Notes:**  
Results **underlined in bold italics** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.  
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.  
Results in orange text exceeded the PE-111578 West Sedimentation Pond Discharge Limit.  
The West Catchment discharged during the monitoring period (June 1 - 7) on June 1 and June 6.  
<sup>1</sup> The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.  
<sup>2</sup> The WQG was not evaluated for parameters with discharge limits.  
<sup>3</sup> The BC WQG for total ammonia is salinity, pH and temperature dependent; see Tables 27E and 27F in BC WQG guidance document.  
<sup>4</sup> The working BC WQG for trivalent antimony [SB(III)] is 0.27 mg/L and is applied to total antimony results.  
<sup>5</sup> When MeHg ≤0.5% of total Hg, the BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.  
<sup>6</sup> 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 <sup>1</sup>		PE-111578 Discharge Limit	Station SP-W-OUT	Station W500GPM-OUT	Station W500GPM-OUT
					Effluent	Effluent	Effluent
					SP-W-OUT	W500GPM-OUT	W500GPM-OUT
		VA25B2858-002	VA25B3035-002		VA25B3227-001		
					2025-06-01 13:20	2025-06-03 9:33	2025-06-04 15:37
General Parameters							
pH - Field	pH units	- <sup>2</sup>	-	5.5 - 9.0	7.5	8.1	8.2
Specific Conductivity - Field	µS/cm	-	-	-	1219	1451	1460
Temperature - Field	°C	-	-	-	20.0	19.8	22.4
Salinity - Field	ppt	-	-	-	0.61	0.73	0.73
Turbidity - Field	NTU	-	-	-	4.69	2.88	2.51
TSS	mg/L	-	-	25 or 75 <sup>6</sup>	<3.0	3.7	3.5
Dissolved Oxygen - Field	mg/L	≥8	-	-	10.37	9.15	8.87
Anions and Nutrients							
Sulphate	mg/L	-	-	-	368	499	-
Chloride	mg/L	-	-	-	16.8	17.1	-
Fluoride	mg/L	-	1.5	-	0.244	0.256	-
Ammonia (N-NH <sub>3</sub> )	mg/L	1.4-3.7 <sup>3</sup>	9.4-25 <sup>3</sup>	-	0.0341	0.021	-
Nitrite (N-NO <sub>2</sub> )	mg/L	-	-	-	<0.0050	<0.0050	-
Nitrate (N-NO <sub>3</sub> )	mg/L	3.7	339	-	0.0633	<0.0250	-
Total Metals							
Aluminum, total (T-Al)	mg/L	-	-	-	0.200	0.151	0.140
Antimony, total (T-Sb)	mg/L	-	0.27 <sup>4</sup>	-	0.00101	0.00112	0.00113
Arsenic, total (T-As)	mg/L	0.0125	0.0125	-	0.00134	0.00137	0.00149
Barium, total (T-Ba)	mg/L	-	-	-	0.00441	0.00442	0.00421
Beryllium, total (T-Be)	mg/L	0.1	-	-	<0.000020	<0.000020	<0.000020
Boron, total (T-B)	mg/L	1.2	-	-	0.017	0.037	0.034
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000150	<0.0000100	<0.0000200
Chromium, total (T-Cr)	mg/L	-	-	-	<0.00050	0.00051	0.00050
Cobalt, total (T-Co)	mg/L	-	-	-	<0.00010	<0.00010	<0.00010
Copper, total (T-Cu)	mg/L	- <sup>2</sup>	- <sup>2</sup>	0.0043	0.00194	0.00114	0.00111
Iron, total (T-Fe)	mg/L	-	-	-	0.325	0.077	0.055
Lead, total (T-Pb)	mg/L	- <sup>2</sup>	- <sup>2</sup>	0.0035	0.000936	0.000300	0.000225
Manganese, total (T-Mn)	mg/L	-	-	-	0.00613	0.00336	0.00265
Mercury, total (T-Hg)	mg/L	0.000016 <sup>5</sup>	-	-	0.0000016	<u>0.0000049</u>	-
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.0924	0.11	0.110
Nickel, total (T-Ni)	mg/L	0.0083	-	-	<0.00050	<0.00050	<0.00050
Selenium, total (T-Se)	mg/L	0.002	-	-	0.000289	0.000429	0.000424
Silver, total (T-Ag)	mg/L	0.0005	0.0037	-	<0.000010	<0.000010	<0.000010
Thallium, total (T-Tl)	mg/L	-	-	-	0.000022	0.000027	0.000028
Uranium, total (T-U)	mg/L	-	-	-	0.0218	0.021	0.0211
Vanadium, total (T-V)	mg/L	- <sup>2</sup>	-	0.0081	0.00156	0.00182	0.00178
Zinc, total (T-Zn)	mg/L	- <sup>2</sup>	- <sup>2</sup>	0.0133	0.0372	<0.0030	<0.0030
Hexavalent Chromium, total	mg/L	0.0015	-	-	<0.00050	<0.00050	-
Dissolved Metals							
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000050	<0.0000050	<0.0000150
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00094	0.00096	0.00094
Iron, dissolved (D-Fe)	mg/L	-	-	-	0.067	0.016	0.012
Lead, dissolved (D-Pb)	mg/L	-	-	-	0.000116	0.000062	0.000060
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.00222	0.00042	0.00057
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00050	<0.00050	<0.00050
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.131	0.166	0.159
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00145	0.00164	0.00166
Zinc, dissolved (D-Zn)	mg/L	-	-	-	0.0134	<0.0010	<0.0010
Polycyclic Aromatic Hydrocarbons (PAHs)							
Acenaphthene	mg/L	0.006	-	-	<0.000010	<0.000010	-
Acridine	mg/L	-	-	-	<0.000010	<0.000010	-
Anthracene	mg/L	-	-	-	<0.000010	<0.000010	-
Benz(a)anthracene	mg/L	-	-	-	<0.000010	<0.000010	-
Benzo(a)pyrene	mg/L	0.00001	-	-	<0.0000050	<0.0000050	-
Chrysene	mg/L	0.0001	-	-	<0.000010	<0.000010	-
Fluoranthene	mg/L	-	-	-	<0.000010	<0.000010	-
Fluorene	mg/L	0.012	-	-	<0.000010	<0.000010	-
1-methylnaphthalene	mg/L	0.001	-	-	<0.000010	<0.000010	-
2-methylnaphthalene	mg/L	0.001	-	-	<0.000010	<0.000010	-
Naphthalene	mg/L	0.001	-	-	<0.000050	<0.000050	-
Phenanthrene	mg/L	-	-	-	<0.000020	<0.000020	-
Pyrene	mg/L	-	-	-	<0.000010	<0.000010	-
Quinoline	mg/L	-	-	-	<0.000050	<0.000050	-
Volatile Organic Compounds (VOCs)							
Benzene	mg/L	0.11	-	-	<0.00050	<0.00050	-
Ethylbenzene	mg/L	0.25	-	-	<0.00050	<0.00050	-
Methyl-tert-butyl-ether	mg/L	5	0.44	-	<0.00050	<0.00050	-
Styrene	mg/L	-	-	-	<0.00050	<0.00050	-
Toluene	mg/L	0.215	-	-	<0.00040	<0.00040	-
Total Xylenes	mg/L	-	-	-	<0.00050	<0.00050	-
Chlorobenzene	mg/L	0.025	-	-	<0.00050	<0.00050	-
1,2-Dichlorobenzene	mg/L	0.042	-	-	<0.00050	<0.00050	-

**Notes:**  
Results **underlined in bold italics** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.  
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.  
Results in orange text exceeded the PE-111578 West Sedimentation Pond Discharge Limit.  
The West Catchment discharged during the monitoring period (June 1 - 7) on June 1 and June 6.  
<sup>1</sup> The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.  
<sup>2</sup> The WQG was not evaluated for parameters with discharge limits.  
<sup>3</sup> The BC WQG for total ammonia is salinity, pH and temperature dependent; see Tables 27E and 27F in BC WQG guidance document.  
<sup>4</sup> The working BC WQG for trivalent antimony [SB(III)] is 0.27 mg/L and is applied to total antimony results.  
<sup>5</sup> When MeHg ≤0.5% of total Hg, the BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.  
<sup>6</sup> 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 <sup>1</sup>					0.0001 <sup>2</sup>	0.0012 – 0.0042 <sup>3,4</sup>
Station	Water Type	Sample ID	Lab ID	Sampling Date		
Influent						
SP-W-IN	Influent	SP-W-IN	VA25B2498-004	2025-05-28	<u><b>0.000219</b></u>	<u><b>0.00690</b></u>
SP-W-IN	Influent	SP-W-IN	VA25B2858-001	2025-06-01	<u><b>0.000137</b></u>	<u><b>0.00498</b></u>
SP-W-IN	Influent	SP-W-IN	VA25B3035-001	2025-06-03	<u><b>0.000208</b></u>	<u><b>0.00864</b></u>
Effluent						
SP-W-OUT	Effluent	SP-W-OUT	VA25B2858-002	2025-06-01	0.000089	0.00160
W500GPM-OUT	Effluent	W500GPM-OUT	VA25B2498-001	2025-05-28	<u><b>0.000112</b></u> <sup>5</sup>	<u><b>0.00383</b></u> <sup>5</sup>
W500GPM-OUT	Effluent	W500GPM-OUT	VA25B3035-002	2025-06-03	<u><b>0.000129</b></u> <sup>5</sup>	<u><b>0.00490</b></u> <sup>5</sup>

**Notes:**  
Results **underlined in bold italics** exceed the applicable long-term water quality guideline for the protection of marine aquatic life.  
<sup>1</sup> The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.  
<sup>2</sup> 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.  
<sup>3</sup> CCME guideline for total mercury = 0.016 µg/L.  
<sup>4</sup> 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.  
<sup>5</sup> W500GPM clarified effluent is directed to the West Sedimentation Pond and there was no discharge from the pond to Howe Sound on May 28 nor on June 3.  
Non-detect results are screened using the detection limit value.

Table C-4: West Catchment Field Measurements Collected During the Monitoring Period (June 1 – 7).

Parameter			Temperature	Dissolved Oxygen (DO)	Salinity	Turbidity	Estimated TSS <sup>3</sup>	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 <sup>6</sup>	5.5 - 9.0	-	-
Lowest Applicable Guideline <sup>1</sup>			-	≥8	-	-	- <sup>2</sup>	- <sup>2</sup>	-	-
Station ID	Water Type	Date								
Influent <sup>4</sup>										
SP-W-IN	Influent	2025-06-01 14:30	20.0	9.93	0.61	48.22	39.0	8.3	1215	No
SP-W-IN	Influent	2025-06-02 12:18	19.8	10.3	0.77	18.88	17.1	7.7	1527	No
SP-W-IN	Influent	2025-06-03 10:36	20.3	9.37	0.73	33.69	28.1	8.1	1447	No
SP-W-IN	Influent	2025-06-04 13:52	22.4	9.55	0.73	14.33	13.7	8.3	1458	No
SP-W-IN	Influent	2025-06-05 9:49	21.3	9.07	0.79	15.19	14.3	8.3	1564	No
SP-W-IN	Influent	2025-06-06 9:59	22.6	8.90	0.79	25.33	21.9	8.4	1572	No
SP-W-IN	Influent	2025-06-07 9:20	22.5	9.49	0.94	16.90	15.6	8.3	1849	No
W500GPM-IN	Influent	2025-06-01 9:17	16.8	9.28	0.6	39.28	32.3	8.3	1207	No
W500GPM-IN	Influent	2025-06-02 12:14	19.8	10.1	0.65	18.28	16.6	8.2	1295	No
W500GPM-IN	Influent	2025-06-03 10:29	20.3	9.67	0.74	13.42	13.0	8.1	1462	No
W500GPM-IN	Influent	2025-06-04 13:44	22.0	10.13	0.73	10.98	11.2	8.4	1456	No
W500GPM-IN	Influent	2025-06-05 9:57	21.4	9.05	0.79	9.49	10.1	8.3	1566	No
W500GPM-IN	Influent	2025-06-06 9:54	22.7	8.93	0.79	9.59	10.2	8.4	1575	No
W500GPM-IN	Influent	2025-06-07 9:16	22.3	8.80	0.81	12.27	12.2	8.3	1597	No
Effluent <sup>5</sup>										
SP-W-OUT	Effluent	2025-06-01 13:20	20.0	10.37	0.61	4.69	6.5	7.5	1219	No
SP-W-OUT	Effluent	2025-06-06 12:13	23.0	7.89	0.79	2.70	5.0	8.3	1573	No
W500GPM-OUT	Effluent	2025-06-01 9:06	15.8	9.40	0.60	6.18	7.6	8.3	1196	No
W500GPM-OUT	Effluent	2025-06-02 12:11	19.7	9.40	0.62	4.04	6.0	8.3	1233	No
W500GPM-OUT	Effluent	2025-06-03 9:33	19.8	9.15	0.73	2.88	5.1	8.1	1451	No
W500GPM-OUT	Effluent	2025-06-04 13:48	22.2	9.75	0.73	3.12	5.3	8.2	1457	No
W500GPM-OUT	Effluent	2025-06-04 15:37	22.4	8.87	0.73	2.51	4.9	8.2	1460	No
W500GPM-OUT	Effluent	2025-06-05 9:54	21.4	8.58	0.79	2.38	4.8	8.2	1564	No
W500GPM-OUT	Effluent	2025-06-06 9:49	22.0	8.54	0.79	2.68	5.0	8.3	1572	No
W500GPM-OUT	Effluent	2025-06-07 9:13	21.8	8.69	0.80	3.36	5.5	8.2	1577	No

**Notes:**  
Results **underlined in bold italics** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.  
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.  
Results in orange text exceeded the PE-111578 West Sedimentation Pond Discharge Limit.  
<sup>1</sup> The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.  
<sup>2</sup> The WQG was not evaluated for parameters with discharge limits.  
<sup>3</sup> TSS concentration is estimated from field turbidity measurements using a site-specific relationship TSS = 0.7458 \* [turbidity as NTU] + 3.  
<sup>4</sup> Daily field measurements for station SP-W-IN were collected from cell 1 of the West Sedimentation Pond.  
<sup>5</sup> There was no discharge at the authorized discharge location (SP-W-OUT) during the monitoring period (June 1 - 7) on June 2 – 5 and on June 7, therefore daily field measurements for SP-W-OUT were not collected on those days.  
<sup>6</sup> The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for each day of Wet Conditions.

**Table C-5: West Catchment Daily Discharge Volumes for the Monitoring Period (June 1 – 7).**

	West Sedimentation Pond Effluent	West TSS Settling System (W500GPM) Clarified Effluent (Station W500GPM-OUT)	West TSS Settling System (ESC) Clarified Effluent (Station ESC-W-OUT)	Water Reclaimed for Construction Purposes (Station W500GPM-OUT)	West WWTP Treated Effluent <sup>1</sup> (Station WWTP-W-OUT)	Discharge to Howe Sound (Station SP-W-OUT)
Unit	m <sup>3</sup>	m <sup>3</sup>	m <sup>3</sup>	m <sup>3</sup>	m <sup>3</sup>	m <sup>3</sup>
<b>PE-111578 Discharge Limit</b>	_ <sup>2</sup>	_ <sup>2</sup>	_ <sup>2</sup>	_ <sup>2</sup>	120	_ <sup>2</sup>
<b>Date</b>						
2025-06-01	0	1,620 <sup>3</sup>	0	34	0	942
2025-06-02	0	2,182 <sup>3</sup>	0	99	0	0
2025-06-03	0	1,831 <sup>3</sup>	0	0	0	0
2025-06-04	0	2,135 <sup>3</sup>	0	0	0	0
2025-06-05	0	1,853 <sup>3</sup>	0	58	0	0
2025-06-06	0	2,152 <sup>3</sup>	0	108	0	1,007
2025-06-07	0	2,196 <sup>3</sup>	0	219	0	0

**Notes:**

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

<sup>1</sup> The West WWTP is not being operated, therefore discharges are not expected from this facility.

<sup>2</sup> The annual average authorized discharge rate from the West Sedimentation Pond is 310 m<sup>3</sup>/day. As noted in PE-111578 Condition 2.1.4, the actual discharge rate may deviate from the annual average rate due to annual variations in precipitation amounts within the catchment area. Therefore, the annual average authorized discharge rate is not evaluated as a discharge limit.

<sup>3</sup> W500GPM clarified effluent is discharged to Howe Sound, recirculated to the West Sedimentation Pond or is reclaimed for construction purposes based on operational considerations. Therefore, the W500GPM clarified effluent volume may be higher than the volume discharged to Howe Sound at station SP-W-OUT. The W500GPM operated each day during the monitoring period (June 1 - 7).

<sup>4</sup> The ESC system was not operational during the monitoring period (June 1 - 7).

## ***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 <sup>1</sup>					0.0001 <sup>2</sup>	0.0015-0.0049 <sup>3,4</sup>
Station	Water Type	Sample ID	Lab ID	Sampling Date		
OUT-01	Non-Contact Water	OUT-01	VA25B1692-001	2025-05-20	0.000042	0.00204
OUT-02	Non-Contact Water	OUT-02	VA25B1591-001	2025-05-19	<b><u>0.000213</u></b>	<b><u>0.00319</u></b>

**Notes:**

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

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

<sup>2</sup> 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.

<sup>3</sup> CCME guideline for total mercury = 0.026 µg/L.

<sup>4</sup> 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: 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 <sup>1</sup>					0.0001 <sup>2</sup>	0.0034-0.0083 <sup>3,4</sup>
Station	Water Type	Sample ID	Lab ID	Sampling Date		
SW-01	Lower Reach of Woodfibre Creek (near the mouth)	SW-01	VA25B0930-001	2025-05-12	0.000051	0.00182
SW-04	Lower Reach of East Creek (near the outlet to the outfall culvert)	SW-04	VA25B0930-002	2025-05-12	<0.000100	0.00090
SW-02	Lower Reach of Mill Creek (upstream of the third bridge)	SW-02	VA25B1050-001	2025-05-13	<0.000020	0.00068
SW-07	Upstream Mill Creek (at the diversion inlet)	SW-07	VA25B1050-003	2025-05-13	<0.000020	0.00097

**Notes:**

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

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

<sup>2</sup> 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.

<sup>3</sup> CCME guideline for total mercury = 0.026 µg/L.

<sup>4</sup> 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-2: 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	VA25B0930-001	2025-05-12	0	2.25
SW-04	Lower Reach of East Creek (near the outlet to the outfall culvert)	SW-04	VA25B0930-002	2025-05-12	0.00348	1.73
SW-02	Lower Reach of Mill Creek (upstream of the third bridge)	SW-02	VA25B1052-001	2025-05-13	0.000274	1.25
SW-07	Upstream Mill Creek (at the diversion inlet)	SW-07	VA25B1052-003	2025-05-13	0	0.534

**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: Estuarine Water Methylmercury and Corresponding Total Mercury Results Received at the Time of Reporting.**

Parameter					Total Methylmercury	Total Mercury
Unit					µg/L	µg/L
Lowest Applicable Guideline <sup>1</sup>					0.0001 <sup>2</sup>	0.0044 <sup>3,4</sup>
Station	Water Type	Sample ID	Lab ID	Sampling Date		
SW-03	Mill Creek Estuary	SW-03	VA25B1050-002	2025-05-13	<0.000020	0.00087

**Notes:**

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

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

<sup>2</sup> 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.

<sup>3</sup> CCME guideline for total mercury = 0.026 µg/L.

<sup>4</sup> 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 F-2: Estuarine Water Dioxin and Furan Toxicity Equivalency Quantity (TEQ) Results Received at the Time of Reporting.**

Parameter					Lower Bound PCDD/F TEQ	Upper Bound PCDD/F TEQ
Unit					pg/L	pg/L
Station	Water Type	Sample ID	Lab ID	Sampling Date		
SW-03	Mill Creek Estuary	SW-03	VA25B1052-002	2025-05-13	0	1.47

**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 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 <sup>1</sup>		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
		VA25B0802-001	VA25B0802-002	VA25B0802-003	VA25B0802-004	VA25B0802-005	VA25B0802-006		
Long Term	Short Term	2025-05-09 10:20	2025-05-09 10:05	2025-05-09 9:45	2025-05-09 14:00	2025-05-09 13:20	2025-05-09 13:05		
General Parameters									
pH - Field	pH units	7.0 - 8.7	-	7.89	7.78	7.55	8.12	8.19	7.60
Specific Conductivity - Field	µS/cm	-	-	4301	7393	31522	10776	17653	31837
Temperature - Field	°C	-	-	9.9	10.4	8.7	10.8	11.3	8.6
Salinity - Field	ppt	Narrative <sup>2</sup>	-	3.3	5.8	29.44	8.61	14.52	29.85
Turbidity - Field	NTU	Narrative <sup>2</sup>	Narrative <sup>2</sup>	4.79	3.99	0.51	3.17	1.95	0.37
TSS	mg/L	Narrative <sup>2</sup>	Narrative <sup>2</sup>	3.8	3.7	<2.1	4.4	5.1	<2.0
Dissolved Oxygen - Field	mg/L	>=8	-	11.83	11.7	<u>7.09</u>	11.43	11.22	<u>6.92</u>
Anions and Nutrients									
Sulphate	mg/L	-	-	130	571	2340	667	974	2360
Chloride	mg/L	-	-	1170	4580	17300	5270	7510	17500
Fluoride	mg/L	-	1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ammonia (N-NH <sub>3</sub> )	mg/L	2-13 <sup>3</sup>	13-85 <sup>3</sup>	0.006	0.0151	0.0601	0.0161	0.0164	0.0448
Nitrite (N-NO <sub>2</sub> )	mg/L	-	-	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Nitrate (N-NO <sub>3</sub> )	mg/L	3.7	339	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Total Metals									
Aluminum, total (T-Al)	mg/L	-	-	0.237	0.158	0.0086	0.151	0.103	0.0103
Antimony, total (T-Sb)	mg/L	-	0.27 <sup>4</sup>	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Arsenic, total (T-As)	mg/L	0.0125	0.0125	<0.00040	0.0005	0.00161	0.00059	0.00073	0.00162
Barium, total (T-Ba)	mg/L	-	-	0.0078	0.0085	0.0097	0.0085	0.0086	0.0095
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	-	0.36	<u>1.31</u>	<u>3.86</u>	<u>1.38</u>	<u>1.86</u>	<u>4.00</u>
Cadmium, total (T-Cd)	mg/L	0.00012	-	<0.000020	0.000028	0.000079	0.000023	0.000035	0.000094
Chromium, total (T-Cr)	mg/L	-	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, total (T-Co)	mg/L	-	-	0.000127	0.000108	0.000072	0.000104	0.000095	0.000072
Copper, total (T-Cu)	mg/L	0.002	0.003	0.00102	0.00092	<0.00050	0.00086	0.00079	<0.00050
Iron, total (T-Fe)	mg/L	-	-	0.215	0.153	0.016	0.142	0.092	0.016
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	-	-	0.00736	0.00643	0.00174	0.00634	0.00545	0.00156
Mercury, total (T-Hg)	mg/L	0.000016 <sup>5</sup>	-	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total (T-Mo)	mg/L	-	-	0.00094	0.00294	0.00967	0.00329	0.00432	0.0095
Nickel, total (T-Ni)	mg/L	0.0083	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Selenium, total (T-Se)	mg/L	0.002	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Silver, total (T-Ag)	mg/L	0.0005	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	-	-	0.00024	0.000816	0.00272	0.000834	0.0012	0.00266
Vanadium, total (T-V)	mg/L	0.005	-	0.00072	0.00084	0.00173	0.00089	0.00089	0.0016
Zinc, total (T-Zn)	mg/L	0.01	0.055	<0.0030	<0.0030	<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	0.000022	0.000077	0.000021	0.00003	0.000076
Copper, dissolved (D-Cu)	mg/L	-	-	<0.00050	0.00057	<0.00050	0.00052	<0.00050	<0.00050
Iron, dissolved (D-Fe)	mg/L	-	-	0.016	0.014	<0.010	0.012	<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	-	-	0.00335	0.00345	0.00161	0.00339	0.00315	0.00143
Nickel, dissolved (D-Ni)	mg/L	-	-	<0.00050	<0.00050	0.0005	<0.00050	<0.00050	<0.00050
Strontium, dissolved (D-Sr)	mg/L	-	-	0.437	1.29	6.08	1.44	2.89	6.21
Vanadium, dissolved (D-V)	mg/L	-	-	<0.00050	<0.00050	0.00159	<0.00050	0.00066	0.00164
Zinc, dissolved (D-Zn)	mg/L	-	-	<0.0010	0.0013	0.0013	0.0085	0.001	0.0011
Polycyclic Aromatic Hydrocarbons (PAHs)									
Acenaphthene	mg/L	0.006	-	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Acridine	mg/L	-	-	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Anthracene	mg/L	-	-	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Benz(a)anthracene	mg/L	-	-	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Benzo(a)pyrene	mg/L	0.00001	-	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Chrysene	mg/L	0.0001	-	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Fluoranthene	mg/L	-	-	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Fluorene	mg/L	0.012	-	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
1-methylnaphthalene	mg/L	0.001	-	0.000015	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
2-methylnaphthalene	mg/L	0.001	-	0.000028	<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.

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

<sup>2</sup> 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.

<sup>3</sup> The approved total ammonia nitrogen BC WQG is salinity, pH and temperature dependent; see Tables 26E and 26F in BC WQG guidance document.

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

<sup>5</sup> 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 <sup>1</sup>		Station IDZ-E1	Station IDZ-E2	Station IDZ-W1	Station IDZ-W2
				0.5 m Below Surface	2 m Below Surface	2 m Above Seafloor	0.5 m Below Surface
				IDZ-E1-0.5	IDZ-E2-0.5	IDZ-W1-0.5	IDZ-W2-0.5
		VA25B2349-003	VA25B2349-004	VA25B2349-001	VA25B2349-002		
Long Term	Short Term	2025-05-27 15:30	2025-05-27 15:10	2025-05-27 13:40	2025-05-27 13:10		
General Parameters							
pH - Field	pH units	7.0 - 8.7	-	8.25	8.18	7.64	7.79
Specific Conductivity - Field	µS/cm	-	-	14792	15282	4993	4315
Temperature - Field	°C	-	-	14.3	14.2	11.5	11.4
Salinity - Field	ppt	Narrative <sup>2</sup>	-	8.64	8.95	2.7	2.31
Turbidity - Field	NTU	Narrative <sup>2</sup>	Narrative <sup>2</sup>	2.23	2.37	4.37	4.08
TSS	mg/L	Narrative <sup>2</sup>	Narrative <sup>2</sup>	2.4	3.0	5.2	3.4
Dissolved Oxygen - Field	mg/L	>=8	-	10.25	9.82	11.16	10.56
Anions and Nutrients							
Sulphate	mg/L	-	-	343	344	140	152
Chloride	mg/L	-	-	2530	2460	1040	1300
Fluoride	mg/L	-	1.5	<1.0	<1.0	<1.0	<1.0
Ammonia (N-NH <sub>3</sub> )	mg/L	1.3-5.6 <sup>3</sup>	8.5-37 <sup>3</sup>	<0.0050	<0.0050	<0.0050	<0.0050
Nitrite (N-NO <sub>2</sub> )	mg/L	-	-	<0.10	<0.10	<0.10	<0.10
Nitrate (N-NO <sub>3</sub> )	mg/L	3.7	339	<0.50	<0.50	<0.50	<0.50
Total Metals							
Aluminum, total (T-Al)	mg/L	-	-	0.0974	0.114	0.23	0.171
Antimony, total (T-Sb)	mg/L	-	0.27 <sup>4</sup>	<0.0010	<0.0010	<0.0010	<0.0010
Arsenic, total (T-As)	mg/L	0.0125	0.0125	0.00048	0.00055	<0.00040	<0.00040
Barium, total (T-Ba)	mg/L	-	-	0.0073	0.0061	0.008	0.0073
Beryllium, total (T-Be)	mg/L	0.1	-	<0.00050	<0.00050	<0.00050	<0.00050
Boron, total (T-B)	mg/L	1.2	-	0.58	0.66	0.37	0.31
Cadmium, total (T-Cd)	mg/L	0.00012	-	<0.000020	<0.000020	<0.000020	<0.000020
Chromium, total (T-Cr)	mg/L	-	-	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, total (T-Co)	mg/L	-	-	0.000079	0.000079	0.000124	0.000106
Copper, total (T-Cu)	mg/L	0.002	0.003	0.00084	0.00113	0.00161	0.00102
Iron, total (T-Fe)	mg/L	-	-	0.085	0.125	0.233	0.154
Lead, total (T-Pb)	mg/L	0.002	0.14	<0.00010	<0.00010	0.00067	<0.00010
Manganese, total (T-Mn)	mg/L	-	-	0.00762	0.00576	0.0125	0.00747
Mercury, total (T-Hg)	mg/L	0.000016 <sup>5</sup>	-	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total (T-Mo)	mg/L	-	-	0.00402	0.00236	0.00096	0.00104
Nickel, total (T-Ni)	mg/L	0.0083	-	<0.00050	<0.00050	<0.00050	<0.00050
Selenium, total (T-Se)	mg/L	0.002	-	<0.00050	<0.00050	<0.00050	<0.00050
Silver, total (T-Ag)	mg/L	0.0005	0.0037	<0.00010	<0.00010	<0.00010	<0.00010
Thallium, total (T-Tl)	mg/L	-	-	<0.000050	<0.000050	<0.000050	<0.000050
Uranium, total (T-U)	mg/L	-	-	0.000518	0.000352	0.000267	0.00028
Vanadium, total (T-V)	mg/L	0.005	-	0.00065	0.00082	0.00083	0.00066
Zinc, total (T-Zn)	mg/L	0.01	0.055	<0.0030	<0.0030	<0.0030	<0.0030
Hexavalent Chromium, total	mg/L	0.0015	-	<0.00150	<0.00150	<0.00150	<0.00150
Dissolved Metals							
Cadmium, dissolved (D-Cd)	mg/L	-	-	<0.000020	<0.000020	<0.000020	<0.000020
Copper, dissolved (D-Cu)	mg/L	-	-	0.00076	0.00069	0.00068	0.00072
Iron, dissolved (D-Fe)	mg/L	-	-	0.013	0.018	0.021	0.021
Lead, dissolved (D-Pb)	mg/L	-	-	<0.00010	<0.00010	<0.00010	<0.00010
Manganese, dissolved (D-Mn)	mg/L	-	-	0.00481	0.00589	0.00565	0.00432
Nickel, dissolved (D-Ni)	mg/L	-	-	<0.00050	<0.00050	<0.00050	<0.00050
Strontium, dissolved (D-Sr)	mg/L	-	-	0.855	0.966	0.449	0.504
Vanadium, dissolved (D-V)	mg/L	-	-	<0.00050	0.00053	<0.00050	<0.00050
Zinc, dissolved (D-Zn)	mg/L	-	-	0.0014	0.0013	0.0013	0.0017
Polycyclic Aromatic Hydrocarbons (PAHs)							
Acenaphthene	mg/L	0.006	-	<0.000010	0.000026	0.000071	0.000019
Acridine	mg/L	-	-	<0.000010	<0.000010	<0.000010	<0.000010
Anthracene	mg/L	-	-	<0.000010	<0.000010	0.000012	<0.000010
Benz(a)anthracene	mg/L	-	-	<0.000010	<0.000010	0.000023	<0.000010
Benzo(a)pyrene	mg/L	0.00001	-	<0.0000050	<0.0000050	0.0000069	<0.0000050
Chrysene	mg/L	0.0001	-	<0.000010	<0.000010	0.000016	<0.000010
Fluoranthene	mg/L	-	-	<0.000010	<0.000010	0.000152	<0.000010
Fluorene	mg/L	0.012	-	<0.000010	0.000011	0.000063	0.000011
1-methylnaphthalene	mg/L	0.001	-	0.000012	0.000011	0.000031	0.000011
2-methylnaphthalene	mg/L	0.001	-	0.000021	0.000012	0.000036	0.000011
Naphthalene	mg/L	0.001	-	<0.000050	<0.000050	0.000072	<0.000050
Phenanthrene	mg/L	-	-	<0.000020	<0.000020	0.000169	<0.000020
Pyrene	mg/L	-	-	<0.000010	<0.000010	0.000088	<0.000010
Quinoline	mg/L	-	-	<0.000050	<0.000050	<0.000050	<0.000050
Volatile Organic Compounds (VOCs)							
Benzene	mg/L	0.11	-	<sup>-6</sup>	<sup>-6</sup>	<sup>-6</sup>	<sup>-6</sup>
Ethylbenzene	mg/L	0.25	-	<sup>-6</sup>	<sup>-6</sup>	<sup>-6</sup>	<sup>-6</sup>
Methyl-tert-butyl-ether	mg/L	5	0.44	<sup>-6</sup>	<sup>-6</sup>	<sup>-6</sup>	<sup>-6</sup>
Styrene	mg/L	-	-	<sup>-6</sup>	<sup>-6</sup>	<sup>-6</sup>	<sup>-6</sup>
Toluene	mg/L	0.215	-	<sup>-6</sup>	<sup>-6</sup>	<sup>-6</sup>	<sup>-6</sup>
Total Xylenes	mg/L	-	-	<sup>-6</sup>	<sup>-6</sup>	<sup>-6</sup>	<sup>-6</sup>
Chlorobenzene	mg/L	0.025	-	<sup>-6</sup>	<sup>-6</sup>	<sup>-6</sup>	<sup>-6</sup>
1,2-Dichlorobenzene	mg/L	0.042	-	<sup>-6</sup>	<sup>-6</sup>	<sup>-6</sup>	<sup>-6</sup>

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.

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

<sup>2</sup> 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.

<sup>3</sup> The approved total ammonia nitrogen BC WQG is salinity, pH and temperature dependent; see Tables 26E and 26F in BC WQG guidance document.

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

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

<sup>6</sup> VOCs were not tested in marine water samples collected May 27.

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

Parameter	Unit	Lowest Applicable Guideline <sup>1</sup>		Reference Station WQR1			Reference Station WQR1	Reference Station WQR2
				0.5 m Below Surface	2 m Below Surface	2 m Above Seafloor	0.5 m Below Surface	0.5 m Below Surface
				WQR1-0.5	WQR1-2m	WQR1-SF	WQR1-0.5	WQR2-0.5
				VA25B0802-007	VA25B0802-008	VA25B0802-009	VA25B2349-005	VA25B2349-006
		Long Term	Short Term	2025-05-09 15:10	2025-05-09 14:25	2025-05-09 14:10	2025-05-27 14:30	2025-05-27 12:20
General Parameters								
pH - Field	pH units	7.0 - 8.7	-	7.99	8.23	7.61	8.13	7.92
Conductivity - Field	µS/cm	-	-	6331	21696	31838	13094	7671
Temperature - Field	°C	-	-	11.0	12.6	8.6	14.1	12.4
Salinity - Field	ppt	Narrative <sup>2</sup>	-	4.84	17.54	29.85	7.57	4.26
Turbidity - Field	NTU	Narrative <sup>2</sup>	Narrative <sup>2</sup>	3.34	1.07	0.26	2.67	4.25
TSS	mg/L	Narrative <sup>2</sup>	Narrative <sup>2</sup>	4.4	2.0	5.1	3.5	5.7
Dissolved Oxygen - Field	mg/L	>=8	-	11.11	10.71	<u>7.01</u>	10.72	11.03
Anions and Nutrients								
Sulphate	mg/L	-	-	407	1260	2380	362	207
Chloride	mg/L	-	-	3310	9540	17400	2630	1520
Fluoride	mg/L	-	1.5	<1.0	<1.0	<1.0	<1.0	<1.0
Ammonia (N-NH <sub>3</sub> )	mg/L	1.3-8.1 <sup>3</sup>	8.5-54 <sup>3</sup>	0.0094	0.0251	0.0261	<0.0050	0.0069
Nitrite (N-NO <sub>2</sub> )	mg/L	-	-	<0.10	<0.10	<0.10	<0.10	<0.10
Nitrate (N-NO <sub>3</sub> )	mg/L	3.7	339	<0.50	<0.50	<0.50	<0.50	<0.50
Total Metals								
Aluminum, total (T-Al)	mg/L	-	-	0.179	0.0416	0.0054	0.128	0.169
Antimony, total (T-Sb)	mg/L	-	0.27 <sup>4</sup>	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Arsenic, total (T-As)	mg/L	0.0125	0.0125	<0.00040	0.00084	0.00162	<0.00040	<0.00040
Barium, total (T-Ba)	mg/L	-	-	0.0084	0.009	0.0101	0.008	0.0083
Beryllium, total (T-Be)	mg/L	0.1	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Boron, total (T-B)	mg/L	1.2	-	0.99	<u>2.50</u>	<u>4.32</u>	0.62	0.44
Cadmium, total (T-Cd)	mg/L	0.00012	-	<0.000020	0.000049	0.000081	<0.000020	<0.000020
Chromium, total (T-Cr)	mg/L	-	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, total (T-Co)	mg/L	-	-	0.00011	0.00008	0.000077	0.000098	0.000099
Copper, total (T-Cu)	mg/L	0.002	0.003	0.00091	0.00065	<0.00050	0.00098	0.00106
Iron, total (T-Fe)	mg/L	-	-	0.164	0.038	0.012	0.132	0.166
Lead, total (T-Pb)	mg/L	0.002	0.14	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Manganese, total (T-Mn)	mg/L	-	-	0.00686	0.00443	0.00113	0.00665	0.00752
Mercury, total (T-Hg)	mg/L	0.000016 <sup>5</sup>	-	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total (T-Mo)	mg/L	-	-	0.00241	0.00563	0.01	0.00185	0.00135
Nickel, total (T-Ni)	mg/L	0.0083	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Selenium, total (T-Se)	mg/L	0.002	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Silver, total (T-Ag)	mg/L	0.0005	0.0037	<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
Uranium, total (T-U)	mg/L	-	-	0.000636	0.00153	0.00281	0.000465	0.00032
Vanadium, total (T-V)	mg/L	0.005	-	0.0008	0.00085	0.00171	0.0007	0.00076
Zinc, total (T-Zn)	mg/L	0.01	0.055	<0.0030	<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
Dissolved Metals								
Cadmium, dissolved (D-Cd)	mg/L	-	-	<0.000020	0.000039	0.000082	<0.000020	<0.000020
Copper, dissolved (D-Cu)	mg/L	-	-	0.00053	0.00054	<0.00050	0.00071	0.00077
Iron, dissolved (D-Fe)	mg/L	-	-	0.011	<0.010	<0.010	0.015	0.02
Lead, dissolved (D-Pb)	mg/L	-	-	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Manganese, dissolved (D-Mn)	mg/L	-	-	0.00328	0.00361	0.00073	0.0043	0.00408
Nickel, dissolved (D-Ni)	mg/L	-	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Strontium, dissolved (D-Sr)	mg/L	-	-	1.00	3.57	5.96	1.23	0.72
Vanadium, dissolved (D-V)	mg/L	-	-	<0.00050	0.00076	0.00146	<0.00050	<0.00050
Zinc, dissolved (D-Zn)	mg/L	-	-	0.0013	<0.0010	0.0011	0.0015	0.001
Polycyclic Aromatic Hydrocarbons (PAHs)								
Acenaphthene	mg/L	0.006	-	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Acridine	mg/L	-	-	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Anthracene	mg/L	-	-	<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
Benzo(a)pyrene	mg/L	0.00001	-	<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
Fluoranthene	mg/L	-	-	<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
1-methylnaphthalene	mg/L	0.001	-	<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
Naphthalene	mg/L	0.001	-	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Phenanthrene	mg/L	-	-	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Pyrene	mg/L	-	-	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Quinoline	mg/L	-	-	<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	<sup>-6</sup>	<sup>-6</sup>
Ethylbenzene	mg/L	0.25	-	<0.00050	<0.00050	<0.00050	<sup>-6</sup>	<sup>-6</sup>
Methyl-tert-butyl-ether	mg/L	5	0.44	<0.00050	<0.00050	<0.00050	<sup>-6</sup>	<sup>-6</sup>
Styrene	mg/L	-	-	<0.00050	<0.00050	<0.00050	<sup>-6</sup>	<sup>-6</sup>
Toluene	mg/L	0.215	-	<0.00040	<0.00040	<0.00040	<sup>-6</sup>	<sup>-6</sup>
Total Xylenes	mg/L	-	-	<0.00050	<0.00050	<0.00050	<sup>-6</sup>	<sup>-6</sup>
Chlorobenzene	mg/L	0.025	-	<0.00050	<0.00050	<0.00050	<sup>-6</sup>	<sup>-6</sup>
1,2-Dichlorobenzene	mg/L	0.042	-	<0.00050	<0.00050	<0.00050	<sup>-6</sup>	<sup>-6</sup>

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.

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

<sup>2</sup> Narrative guideline for the evaluation of change from background conditions arising from discharges to the aquatic environment. Salinity WQG was not evaluated. The water quality data presented in the table were collected from marine reference stations, therefore the turbidity and TSS WQGs were not evaluated.

<sup>3</sup> The approved total ammonia nitrogen BC WQG is salinity, pH and temperature dependent; see Tables 26E and 26F in BC WQG guidance document.

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

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

<sup>6</sup> VOCs were not tested in marine water samples collected May 27.

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

Parameter	Unit	Lowest Applicable Guideline <sup>1</sup>		Station IDZ-E1		Station IDZ-E2	
				2 m Below Surface	2 m Above Seafloor	2 m Below Surface	2 m Above Seafloor
				IDZ-E1-2m	IDZ-E1-SF	IDZ-E2-2m	IDZ-E2-SF
				VA25B2350-005	VA25B2350-006	VA25B2350-007	VA25B2350-008
		Long Term	Short Term	2025-05-27 15:35	2025-05-27 15:40	2025-05-27 15:15	2025-05-27 15:20
General Parameters							
pH - Field	pH units	7.0 - 8.7	-	8.28	8.14	8.27	8.22
Specific Conductivity - Field	µS/cm	-	-	19435	38845	19925	31313
Temperature - Field	°C	-	-	14.3	12.9	14.3	13.9
Salinity - Field	ppt	Narrative <sup>2</sup>	-	11.61	24.72	11.32	19.52
Turbidity - Field	NTU	Narrative <sup>2</sup>	Narrative <sup>2</sup>	2.09	1.03	2.04	1.01
TSS	mg/L	Narrative <sup>2</sup>	Narrative <sup>2</sup>	4.9	3.4	<2.0	<2.0
Dissolved Oxygen - Field	mg/L	>=8	-	10.68	10.49	10.77	10.71

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.

<sup>1</sup> The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.  
<sup>2</sup> 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.

Table G-5: Summary of Marine Water Quality Results Received at the Time of Reporting

Parameter	Unit	Lowest Applicable Guideline <sup>1</sup>		Station IDZ-W1		Station IDZ-W2	
				2 m Below Surface	2 m Above Seafloor	2 m Below Surface	2 m Above Seafloor
				IDZ-W1-2m	IDZ-W1-SF	IDZ-W2-2m	IDZ-W2-SF
				VA25B2350-001	VA25B2350-002	VA25B2350-003	VA25B2350-004
		Long Term	Short Term	2025-05-27 13:45	2025-05-27 13:50	2025-05-27 13:15	2025-05-27 13:20
General Parameters							
pH - Field	pH units	7.0 - 8.7	-	8.15	7.56	7.82	7.57
Specific Conductivity - Field	µS/cm	-	-	17718	48885	8429	48809
Temperature - Field	°C	-	-	12.6	8.6	11.8	8.7
Salinity - Field	ppt	Narrative <sup>2</sup>	-	10.49	31.63	4.71	31.58
Turbidity - Field	NTU	Narrative <sup>2</sup>	Narrative <sup>2</sup>	2.98	1.09	3.84	1.08
TSS	mg/L	Narrative <sup>2</sup>	Narrative <sup>2</sup>	4.8	5.2	4.3	3.9
Dissolved Oxygen - Field	mg/L	>=8	-	10.81	<b><u>6.02</u></b>	11.21	<b><u>6.29</u></b>

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.  
<sup>1</sup> The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.  
<sup>2</sup> 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.

Table G-6: Marine Water Methylmercury and Corresponding Total Mercury Results Received at the Time of Reporting.

Parameter					Total Methylmercury	Total Mercury
Unit					µg/L	µg/L
Lowest Applicable Guideline <sup>1</sup>					0.0001 <sup>2</sup>	0.014-0.020 <sup>3,4</sup>
Station	Position in Water Column	Sample ID	Lab ID	Sampling Date		
Station IDZ-E1						
IDZ-E1	0.5 m Below Surface	IDZ-E1-0.5	VA25B0802-001	2025-05-09	<0.000020	<0.0050
IDZ-E1	2 m Below Surface	IDZ-E1-2m	VA25B0802-002	2025-05-09	0.000021	<0.0050
IDZ-E1	2 m Above Seafloor	IDZ-E1-SF	VA25B0802-003	2025-05-09	<0.000020	<0.0050
Station IDZ-E2						
IDZ-E2	0.5 m Below Surface	IDZ-E2-0.5	VA25B0802-004	2025-05-09	<0.000020	<0.0050
IDZ-E2	2 m Below Surface	IDZ-E2-2m	VA25B0802-005	2025-05-09	<0.000020	<0.0050
IDZ-E2	2 m Above Seafloor	IDZ-E2-SF	VA25B0802-006	2025-05-09	<0.000100	<0.0050
Reference Station WQR1						
WQR1	0.5 m Below Surface	WQR1-0.5	VA25B0802-007	2025-05-09	0.000025	<0.0050
WQR1	2 m Below Surface	WQR1-2m	VA25B0802-008	2025-05-09	<0.000020	<0.0050
WQR1	2 m Above Seafloor	WQR1-SF	VA25B0802-009	2025-05-09	0.000035	<0.0050

Notes:  
Results **underlined in bold italics** exceed the applicable long-term water quality guideline for the protection of marine aquatic life.  
<sup>1</sup> The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.  
<sup>2</sup> 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.  
<sup>3</sup> CCME guideline for total mercury = 0.016 µg/L.  
<sup>4</sup> 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 G-7: Marine Water Dioxin and Furan Toxicity Equivalency Quantity (TEQ) Results Received at the Time of Reporting.**

Parameter					Lower Bound PCDD/F TEQ	Upper Bound PCDD/F TEQ
Unit					pg/L	pg/L
Station	Position in Water Column	Sample ID	Lab ID	Sampling Date		
Station IDZ-E1						
IDZ-E1	0.5 m Below Surface	IDZ-E1-0.5	VA25B0800-001	2025-05-09	0	0.803
IDZ-E1	2 m Below Surface	IDZ-E1-2m	VA25B0800-002	2025-05-09	0	0.896
IDZ-E1	2 m Above Seafloor	IDZ-E1-SF	VA25B0800-003	2025-05-09	0	0.880
Station IDZ-E2						
IDZ-E2	0.5 m Below Surface	IDZ-E2-0.5	VA25B0800-004	2025-05-09	0.00451	0.618
IDZ-E2	2 m Below Surface	IDZ-E2-2m	VA25B0800-005	2025-05-09	0	0.737
IDZ-E2	2 m Above Seafloor	IDZ-E2-SF	VA25B0800-006	2025-05-09	0.00638	0.803
Reference Station WQR1						
WQR1	0.5 m Below Surface	WQR1-0.5	VA25B0800-007	2025-05-09	0.0181	0.839
WQR1	2 m Below Surface	WQR1-2m	VA25B0800-008	2025-05-09	0.0110	0.765
WQR1	2 m Above Seafloor	WQR1-SF	VA25B0800-009	2025-05-09	0.00131	0.960

**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