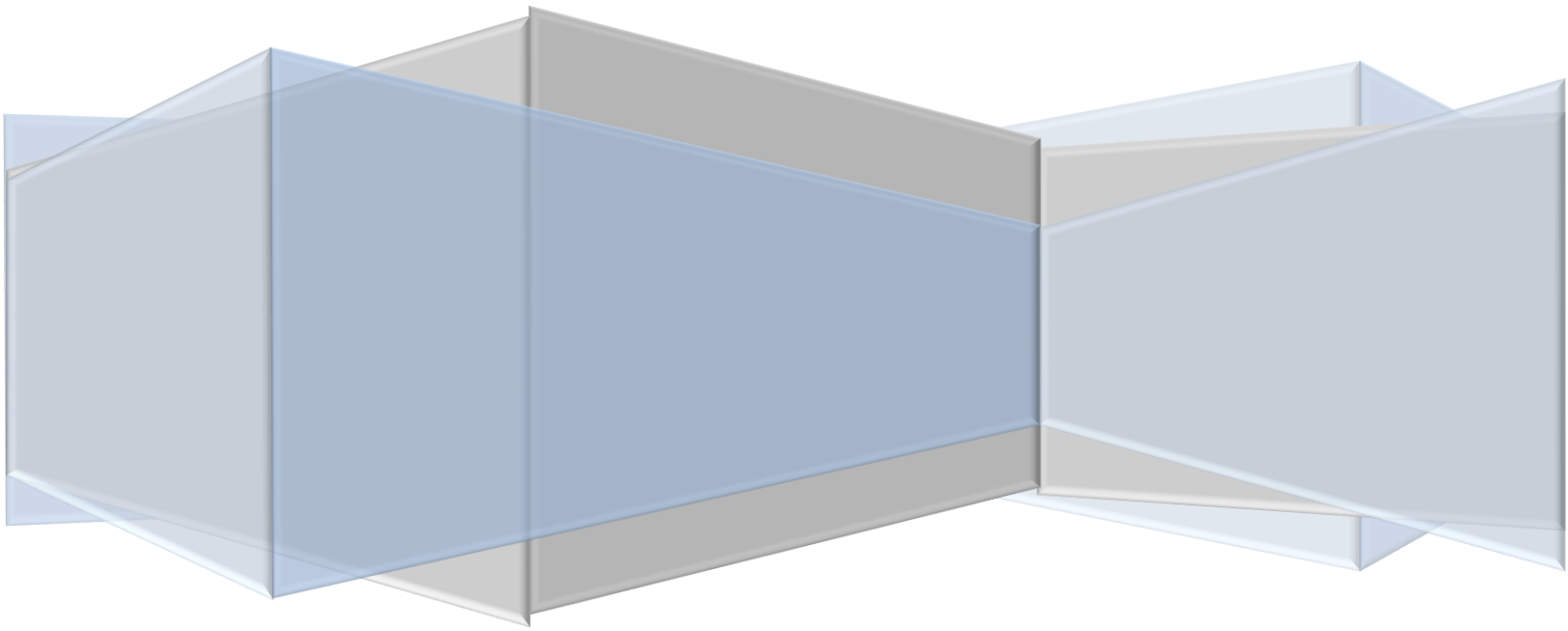
Quinsam Coal Corporation - Quarterly Report (April-June 2024)

For Effluent Permit PE: 7008

Environmental Department



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Phytoplankton Results - Quinsam Lakes

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Quinsam Coal Corporation for taxonomic analyses

INTRODUCTION

Quinsam Coal Corporation (QCC) operates water management systems under permits C-172 and PE:7008 to mitigate mining impacts on the Middle Quinsam Sub-Basin and Iron River watersheds. Permit PE:7008 specifies monitoring programs and allowable levels for water quality parameters, covering surface and groundwater monitoring within and outside the mine footprint.

The Quinsam Coal Mine, located 25 km southwest of Campbell River, B.C., is an underground mine with access via Highway 28 and FSR 9563. The mine produced High Volatile "A" Bituminous Coal, processed on-site and shipped from the Middle Point Barge Terminal.

Run-of-mine coal was processed at an on-site plant, generating coarse coal reject (CCR) and fine coal refuse (tailings). These wastes are classified as potentially acid generating (PAG) or non-PAG. Non-PAG tailings are stored in the Tailings Storage Facility (TSF), while non-PAG CCR is used for TSF construction or stored in the 2-North Open Pit. PAG-CCR material was historically disposed of sub-aqueously in surface and underground locations.

Authorized discharge locations under PE-7008 include Settling Pond #1 (SP1) to Long Lake, Settling Pond #4 (SP4) to Middle Quinsam Lake, and 7-South Surface Discharge (7SSD) to the Quinsam River, which is currently inactive.

Water management covers areas 2/3 South, 5-South, 7-South, and 2/3 North. Mine contact water from 7-South is pumped into the 5-South flooded mine void. Since January 2022, 5-South mine water has not been pumped into the 2-North mine. In the 2/3-South areas, contact water is pumped to and discharged at SP1. The Long Lake Seeps and three potential seepage pathways near the Quinsam River are under investigation for unauthorized discharges.

2.0 PROJECT LOCATION

The Quinsam Coal Mine, referred to as "the Site," is an underground coal mine located in the east-central area of Vancouver Island, 20 kilometers west of the City of Campbell River and about 200 kilometers northwest of Vancouver. Access to the mine from Campbell River is via BC Provincial Highway 28 (the Gold River Highway) and Ministry of Forests – Forest Service Road 9563 (the Argonaut Main).

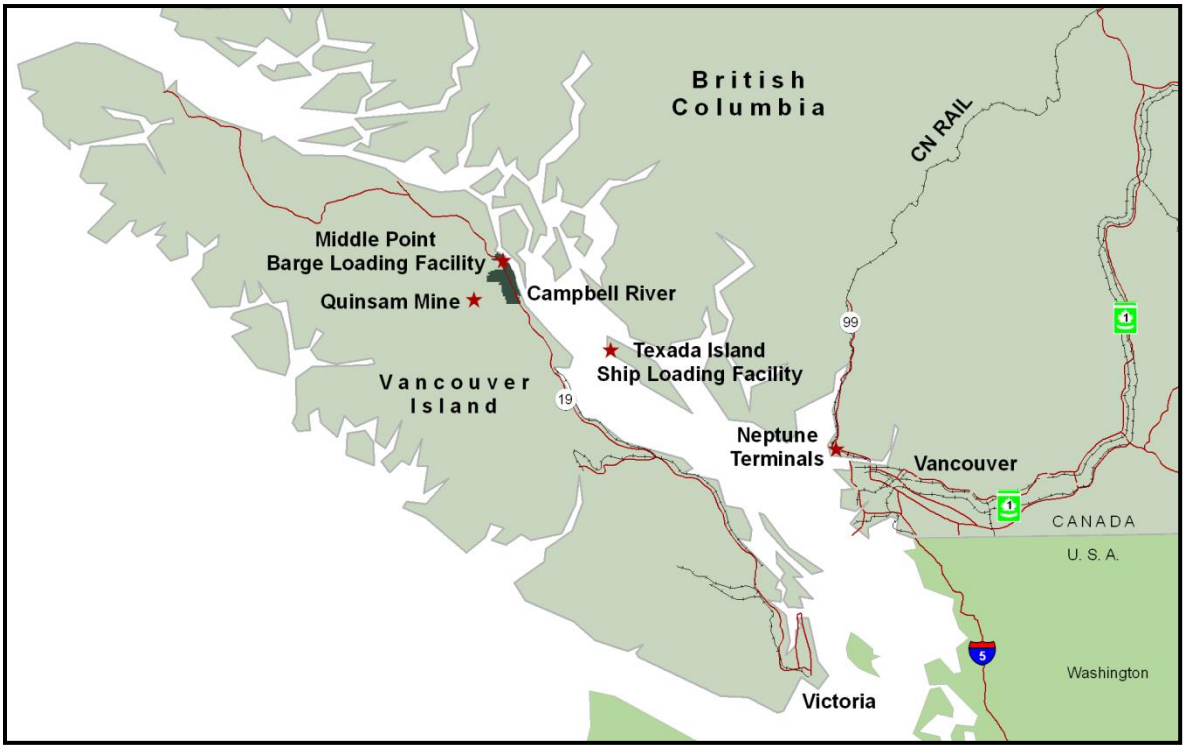

Figure 1: Regional Location Map

The Quinsam River watershed drains an area of approximately 280 km², separate from the Campbell River watershed by a topographical divide. The site is situated within the Quinsam Subbasin, with mine effluent discharge entering from the south into Long Lake and from the north into Middle Quinsam Lake. Both lakes drain into the Quinsam River. The site is located along the northeastern foothills of the Beaufort Range, characterized by gently rolling lands incised by stream and river channels, the most prominent being the Quinsam River. The Quinsam River flows northward from Middle Quinsam Lake before making an abrupt eastward bend and continuing towards Lower Quinsam Lake.

The water bodies in the subbasin include Upper Quinsam, Middle Quinsam, Lower Quinsam, No Name, Long, and Flume Lakes. Upper Quinsam Lake drains into Wokas Lake, forming the headwaters of the Quinsam River. The Quinsam River flows approximately 5 km past the Argonaut Bridge into the inlet of Middle Quinsam Lake. Long Lake enters the Quinsam River

from the south near the outlet of Middle Quinsam Lake. The Quinsam River flows east roughly 10 km before entering Lower Quinsam Lake and then north 25 km before joining the Campbell River, 3 km from the estuary.

The Iron River, a major tributary to the Quinsam River, enters from the south approximately 5 km downstream of Middle Quinsam Lake and about 2.5 km from the inlet of Lower Quinsam Lake. The outflow from Flume Lake drains a small basin and flows into the Quinsam River near the west end of Middle Quinsam Lake. Long Lake drains a small subbasin downstream of No Name Lake and enters the Quinsam River from the south near the outlet of Middle Quinsam Lake.

There are two dams located in the upper watershed on the Quinsam River between Wokas Lake and Middle Quinsam Lake. Flows have been regulated by BC Hydro since 1957. These dams divert water through a designed channel into either the Quinsam River entering Middle Quinsam Lake or Gooseneck Lake draining into the Campbell River towards the John Hart Dam Hydro Electricity Generating Station. Refer to Figure 2 and Figure 3, below.

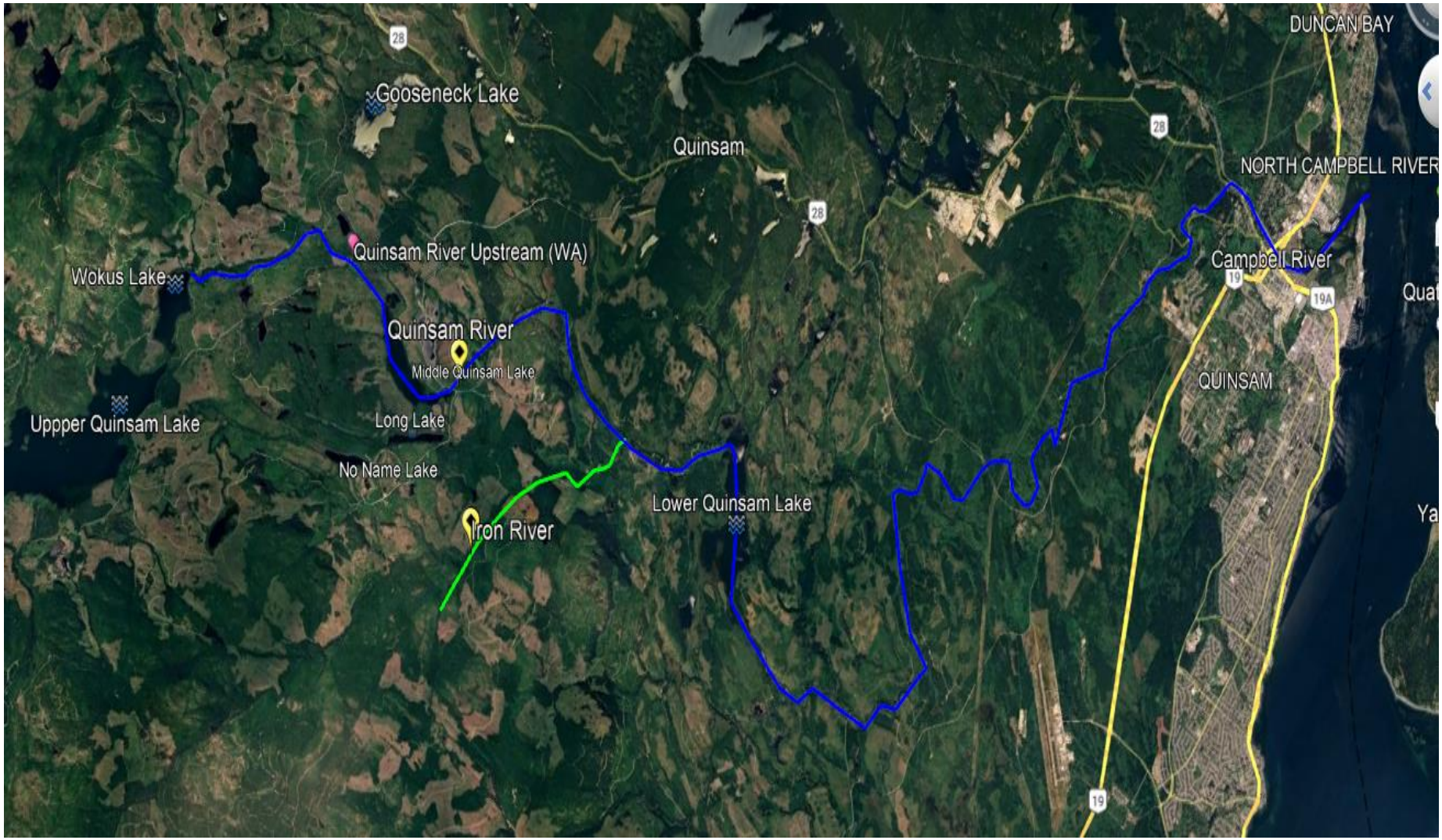

Figure 2: Quinsam Watershed

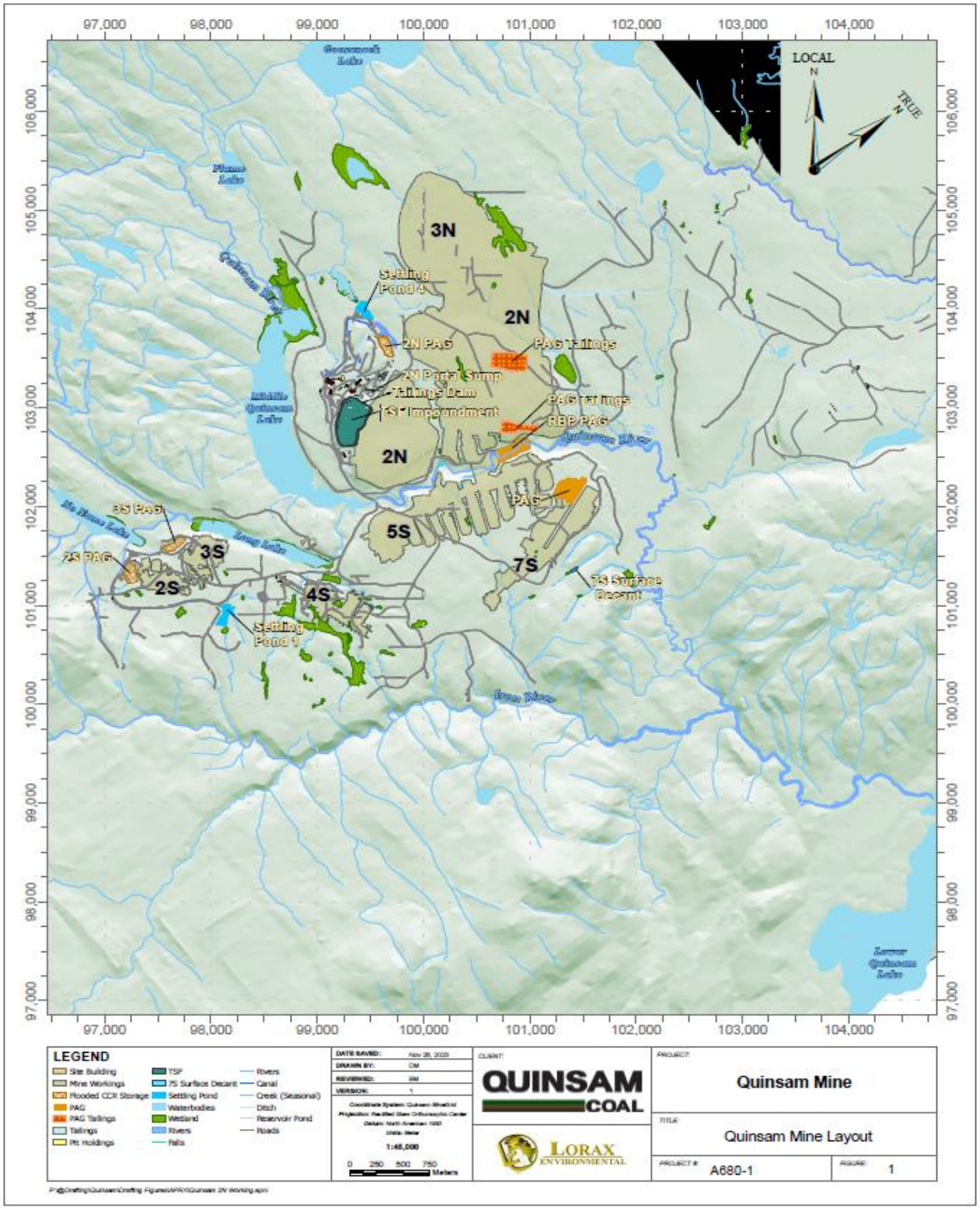

Figure 3: Quinsam Mine Layout

3.0 QUARTERLY REPORT SUMMARY

The mine continues to be operated in a "*care and maintenance*" mode with MNP, formerly The Bowra Group Inc. as the Receiver.

The 2023-2024 Annual Water Quality Monitoring Report was submitted on June 28th. This report and others can be viewed here: http://www.quinsamcoalenvironmentalreports.com/

Authorized discharge locations include Settling Pond #1 (SP1) on the south side, Settling Pond #4 (SP4) on the north side, and 7-South Surface Decant (7SSD) for the 7-South Mine. Discharge occurred from SP1 and SP4 during Q1, with no discharge from 7SSD. Discharge characteristics (water quality and quantity) are compared to permit limits.

Non-compliance with PE:7008 occurred at SP1 and SP4 due to continuous flow monitoring and equipment malfunctions.

Effluent discharged without processing through authorized works is considered a bypass (S, S2A, S2B, LLSM, and LLS).

The receiving environment monitoring program for lakes (No Name, Long, Middle, and Lower Quinsam Lakes) and river/stream stations (Iron and Quinsam Rivers, No Name and Long Lake outlet channels) was completed this spring. This program followed the 5 samples in 30 days schedule, with sampling events from March 28th to May 8th during the "spring freshet" period.

Water quality in the receiving environment is compared to British Columbia Water Quality Guidelines for Freshwater Aquatic Life (BC WQG-FWAL), both acute and chronic. Chronic WQGs are averaged over five weeks, with individual results compared to both chronic and acute WQGs.

Dissolved copper was slightly elevated above BC WQG-FWAL throughout the receiving environment, both upstream and downstream of mine influence. Total aluminum was elevated above chronic WQGs in No Name Lake at 4 meters, 9 meters, and 1 meter from the bottom.

At the wetland location in the South mine area at Long Lake Entrance (LLE), average weekly concentrations of sulphate were elevated above the chronic WQG of 128 mg/L.

Locations S and S2 (A and B) had total arsenic concentrations above the chronic WQG of 0.005 mg/L. Total boron was above the chronic WQG of 1.2 mg/L at site S. Dissolved sulphate was elevated at both LLS and LLSM, with total iron elevated at LLS during one sampling event this quarter. Refer to Appendix I, Table 3 for further details.

During Q1, both in-situ (mine water) and ex-situ (groundwater) sites were compared to Contaminated Site Regulation for Aquatic Life (CSR-AW) (BC reg.37/96. O.C. 1480/96).

Parameters of interest (dissolved arsenic, dissolved cadmium, chloride, selenium, sulphate, and sulfide calculated as hydrogen sulfide) had concentrations trending above CSR-AW.

Routine inspections were conducted, and any required maintenance of the water management structures was completed.

3.1 Permit Limit Exceedance

There were no parameters above permit limits this quarter.

3.2 Compliance with Permit

This section summarizes permit non-compliance (PNC) issues related to missed samples, continuous flow requirements, and unauthorized discharges. Details are in Appendix I, Table 2.

Non-Compliance Issues:

- **SP1**: 7 days of unrecorded flow due to terminal strip malfunction.
- **SP4**: 13 days of unrecorded flow due to an SD card error, which was later fixed.

Bypasses:

Effluent bypasses of authorized works occurred at locations S, S2A, S2B, LLSM, and LLS.

- LLS: Flowed for 1 week in April, averaging 250 mL/min.

- LLSM: Flowed for 12 days in April due to dewatering efforts and low winter precipitation.
- Natural Flow Paths:

Discovered in 2021 at locations S, S2 (A and B), and SUS.

- S2US: Flowed for 3 days with seepage at lower elevations.
- S2B: Flowed for 2 weeks (April 1-15).
- S and S2A: Continued to flow throughout the quarter.

Underground Water Levels:

- 2-North mine water levels are below the river and potential seepage locations.
- S2A flow path appears to be influenced by perched water tables rather than mine water seepage. Further investigation is ongoing.

To address the equipment malfunctions at SP1 and SP4, the following actions are being taken:

SP1: The terminal strip malfunction has been identified and repaired to ensure accurate flow data recording.

SP4: The SD card error was resolved by reformatting the card and restoring proper data logging functionality.

Additionally, regular inspections and maintenance are being conducted to prevent future malfunctions and ensure continuous compliance with permit requirements.

4.0 WATER MANAGEMENT SYSTEMS

4.1 NORTH WATER MANAGEMENT SYSTEMS (NWMS)

There is currently limited access to the 2-North underground workings and no access to the 5-South underground workings. Water levels in underground workings are influenced by surface and groundwater infiltration and have a seasonal trend of increased water levels in the wet season and lower water levels in the dry season. The North water management system (NWMS) consists of underground 2-North mine water pumped to surface and directed into either Brinco Brook or the 2-North pit pond, (WP) with release through the authorized discharge location, Settling Pond 4 (SP4).

Dewatering pumps are positioned underground and from the surface to control water levels. If pumping was eliminated the mine would fill, reducing the range between fluctuating water levels through the seasons. Water levels would become more stable throughout the year reaching a steady state flooded condition. The seasonal range of fluctuating water levels and the water elevation of a completely flooded mine is currently unknown due to dewatering efforts.

Refer to Table 1 below, describing the underground and surface pump systems. The Quinsam Mine employs a comprehensive water management system to handle mine-related runoff and underground water.

North Water Management System (NWMS):

- Collects runoff from disturbed surface areas in the north.
- Also receives pumped water from the 2-North underground my operations.
- Components include catchment sumps, ditches, pipelines, and Settling Pond #4.
- Settling Pond #4 water was pumped to the Coal Processing Plant (CPP)
- Coal process water was pumped to the Tailings Dam.

2-North Mine Dewatering Components:

The 2-North Mine utilizes a network of pump systems. These include the following and with additional information provided in Table 1:

- 1 Mains 2-North (1M2N)
- 5 Mains 2-North (5M2N)
- 3 Mains 2-North (3M2N)
- 2-North Portal Sump (2NPS)
- South Dyke Sump (SDS)

Table 1: North Water Management Pumping System

Area	Type of Pump – Horsepower (Hp)	Total Pumping Capacity, Gallons per minute (GPM)	Discharge location
1M2N	1 x 125 Hp	750	Brinco Brook or WP
5M2N	1 x 125 Hp	750	Brinco Brook
3M2N	2 x 250 Hp	Over 4500	Brinco Brook or WP
2NPS	1 x 58 Hp (1 on standby)	800	Brinco Brook
SDS	1 x 58 Hp	800	Underground 3-Mains
Settling Pond #4 to CPP	1 x 125 Hp	2250	
CPP to Tailings Dam	1 x 125 Hp	2250	
Contingency			
3M2N	1 x 58 Hp feeding 1 x 250 Hp	2250	Brinco Brook or WP

Purpose for the pumps Underground:

- Maintain water levels underground,
- Protect underground electrical equipment,
- Mitigate potential seepage from subsidence features.

Contingency Pumps:

- Additional pumps (1 x 250 Hp) are on standby in 3M2N.
- Dewater specific mine areas once water levels rise to the elevation of the pumps.

South Dyke Sump (SDS) and Redirected Water:

- SDS collects seepage water from the south side of the tailings dam.
- When the 5-South dewatering pump was operating, combined 5-South and 7-South mine water was redirected into boreholes above 3M2N.

2-North Portal Sump, (2NPS) EMS #E283433:

Collects seepage water from the following:

- Tailings Storage Facility (TSF),
- 2-North Pit Sump,
- South Dam
- Underground 1Mains roadways,
- Combine water is pumped via 58 Hp into Brinco Brook or 2-North Pit Sump.

2-North Pit Sump, (WP) EMS #E207412:

- Subaqueous PAG-CCR facility.
- Contains waste rock from 5-South mine coal processing.
- Stored with at least 1.50 m of water cover to prevent acid generation.
- Permanent water cover sourced from 1M2N, 3M2N, or 2NPS.

Settling Pond #4 (SP4/WD) EMS #E207409:

- Authorized discharge location for NWMS, permit limits (PE:7008).
- Collects gravity-fed water from Brinco Brook
- Acts as the final collection point before discharge into a meadow/biomass system.
- Approximately 2.4 ha of marshland with a storage capacity of 30,000 m^3

Culvert, at Middle Quinsam Lake Road (WC) EMS #E207411:

- Downstream location from SP4, discharge water from SP4 and meadow/biomass system.
- Last monitoring point before entering Middle Quinsam Lake near the inlet.

Figure 4, provides a flow chart describing the flow paths for NWMS. Figures 5 and 6 display the seasonal trends influenced by surface water inflows and pumping rates in the 2-North mine void. Peaks are observed in January at an elevation of 245 meters above sea level (m ASL). Figure 7 displays underground water levels in 2-North mine compared to discharge at SP4.

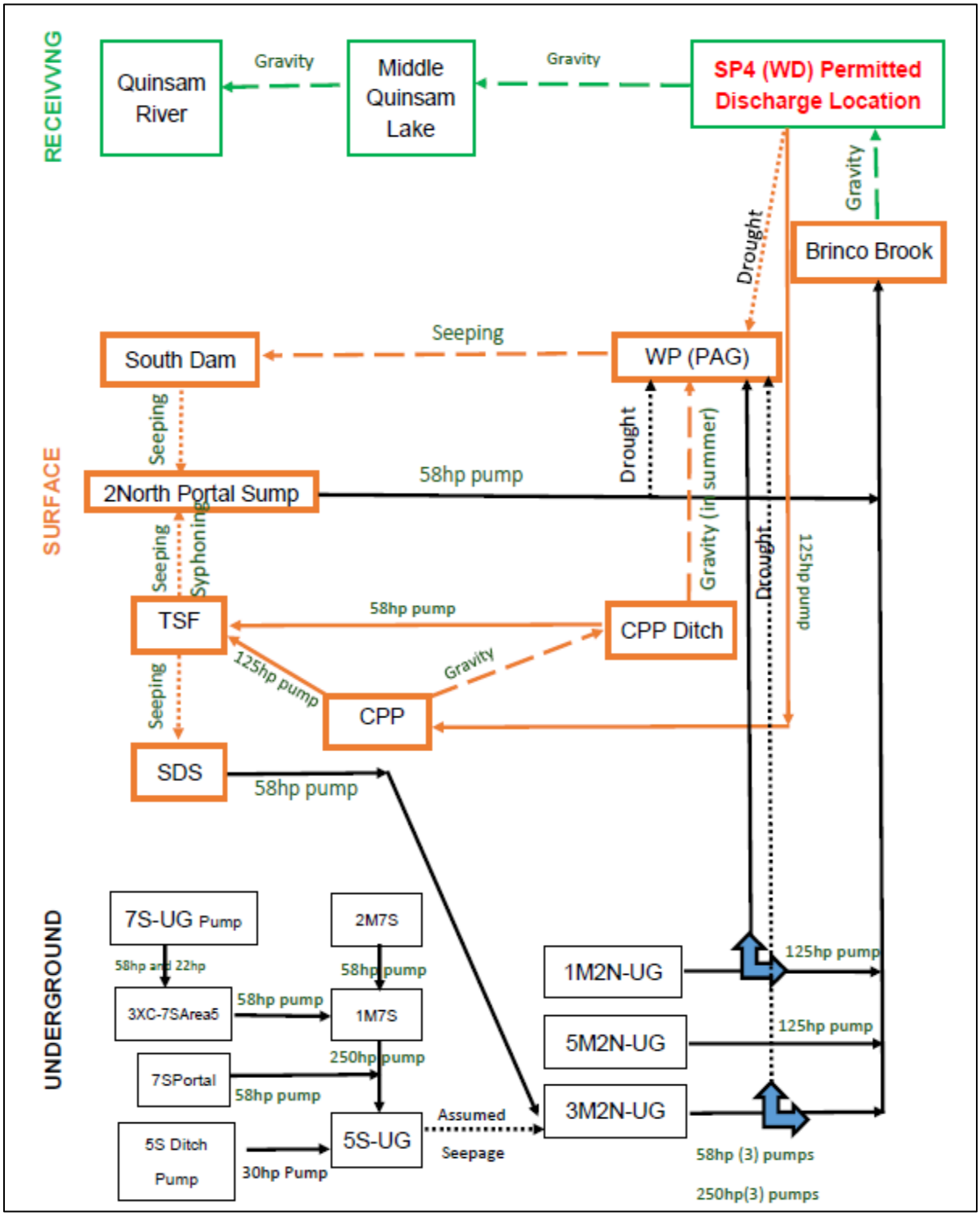

Figure 4: North Water Management System (NWMS)

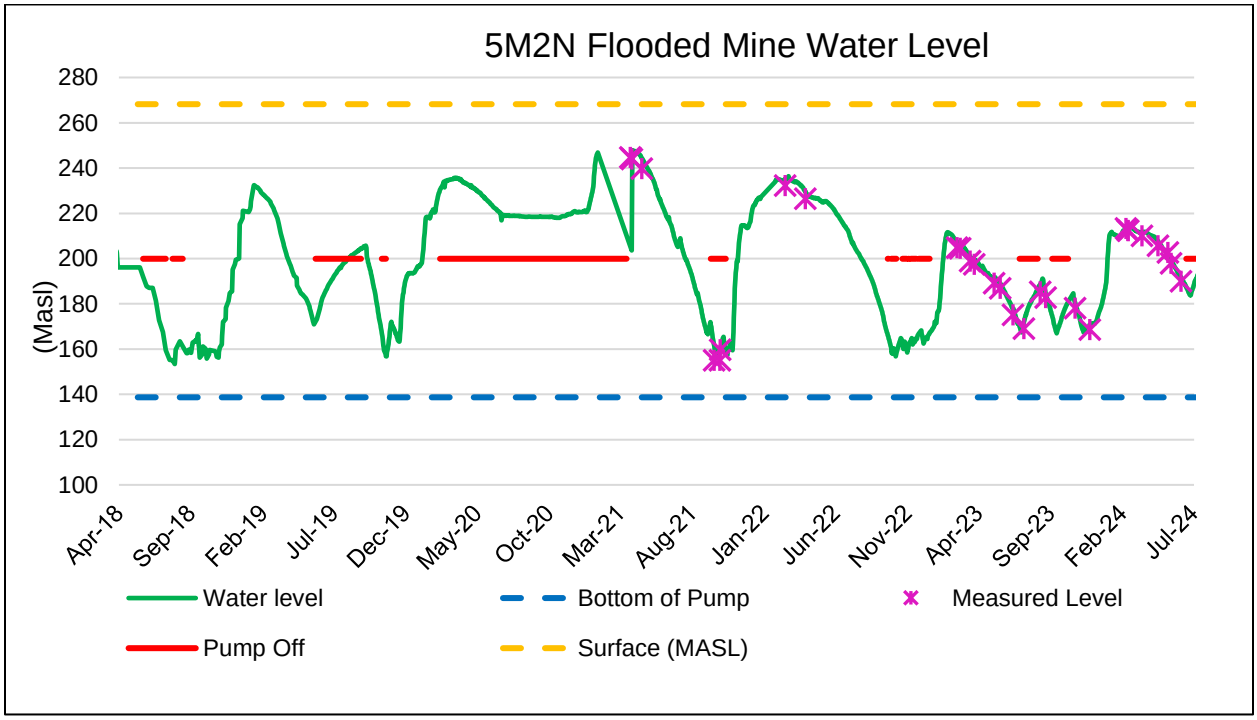

Figure 5: 5M2N Flooded Mine Water Level

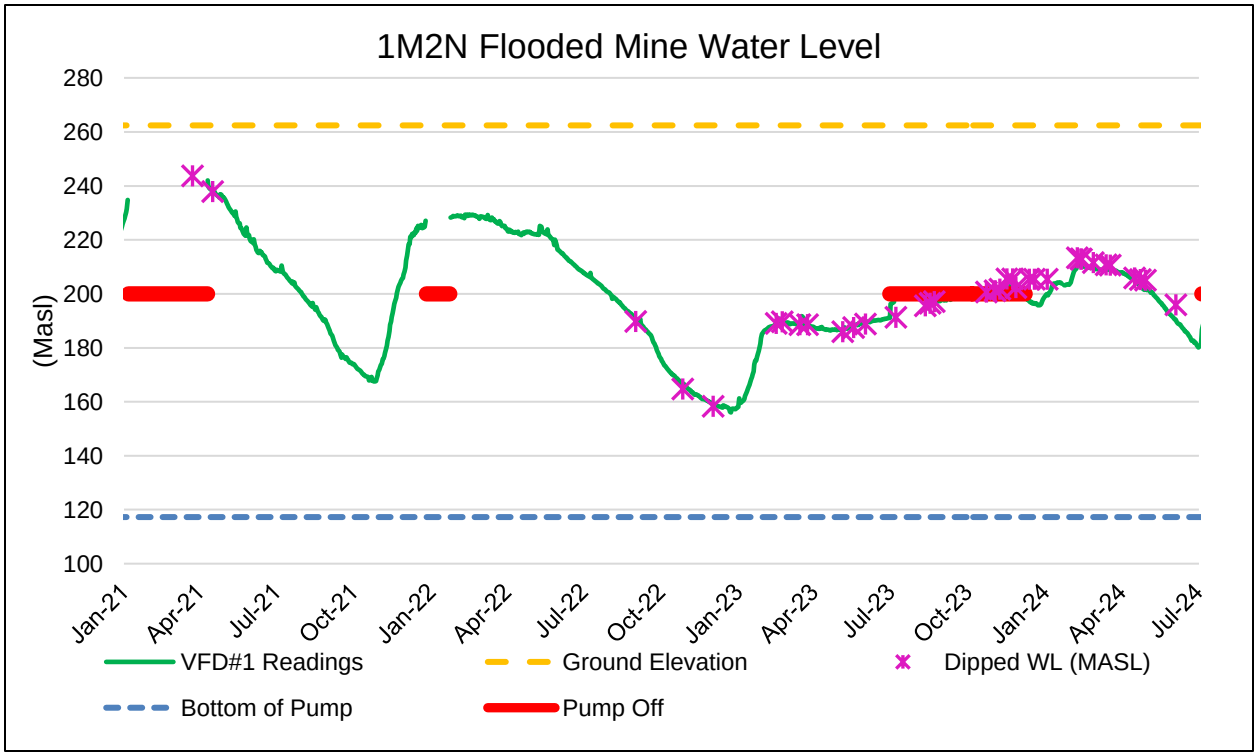

Figure 6: 1M2N Flooded Mine Water Level

Discharge pipelines at 1M2N and 3M2N are equipped with gate valves where water can be directed into the WP. Water is used to supply sufficient water cover over the Potentially Acid Generating (PAG), Course Coal Refuse (CCR) in WP, refer to Table 2, below describes the pumping on / off sequence and direction of water for Q1 to August 18th, 2024.

Table 2: Pumping On / Off Sequences and Discharge Direction

Date	Pump	Pump Power On / Off	Discharged to:
28-Mar to 23-May	7SA5	Off	1M7S
10-Apr	1M2N	On	WP
19-Apr	1M2N	On	Brinco
17-May	1M2N	On	WP
25-May	1M2N	On	Brinco
21-Jun	1M2N	On	WP
15-Apr to 18-Apr	7SPS	Off	Retained
22-Apr to 30-Apr	7SPS	Off	Retained
1-May to August 18	7SPS	On	5-South Mine Void
24-Jun to 18-Aug	7SA5	Off	Retained
8-Feb	1M2N and 5M2N	Off	
1-Jul	5M2N	Off	
5-Jul	1M2N	Off	
13-Aug	1M2N and 5M2N	On	Brinco

All pipelines that discharge water from 2-North Mine into Setting Pond #4 are now equipped with Seametrics flow meters to calculate flow volumes for the water balance model. This information provides a totalized amount of water entering and pumped from the mine workings.

Figure 7, below, displays the volume of discharge breakdown and percentage from each area since June 2023. As displayed, 40% of discharge water exits the site at SP4 indicating that approximately 20% can be allocated to 1M2N discharged into WP to maintain a water cover and evaporation for this Quarter (April 1, 2024 to June 30, 2024).

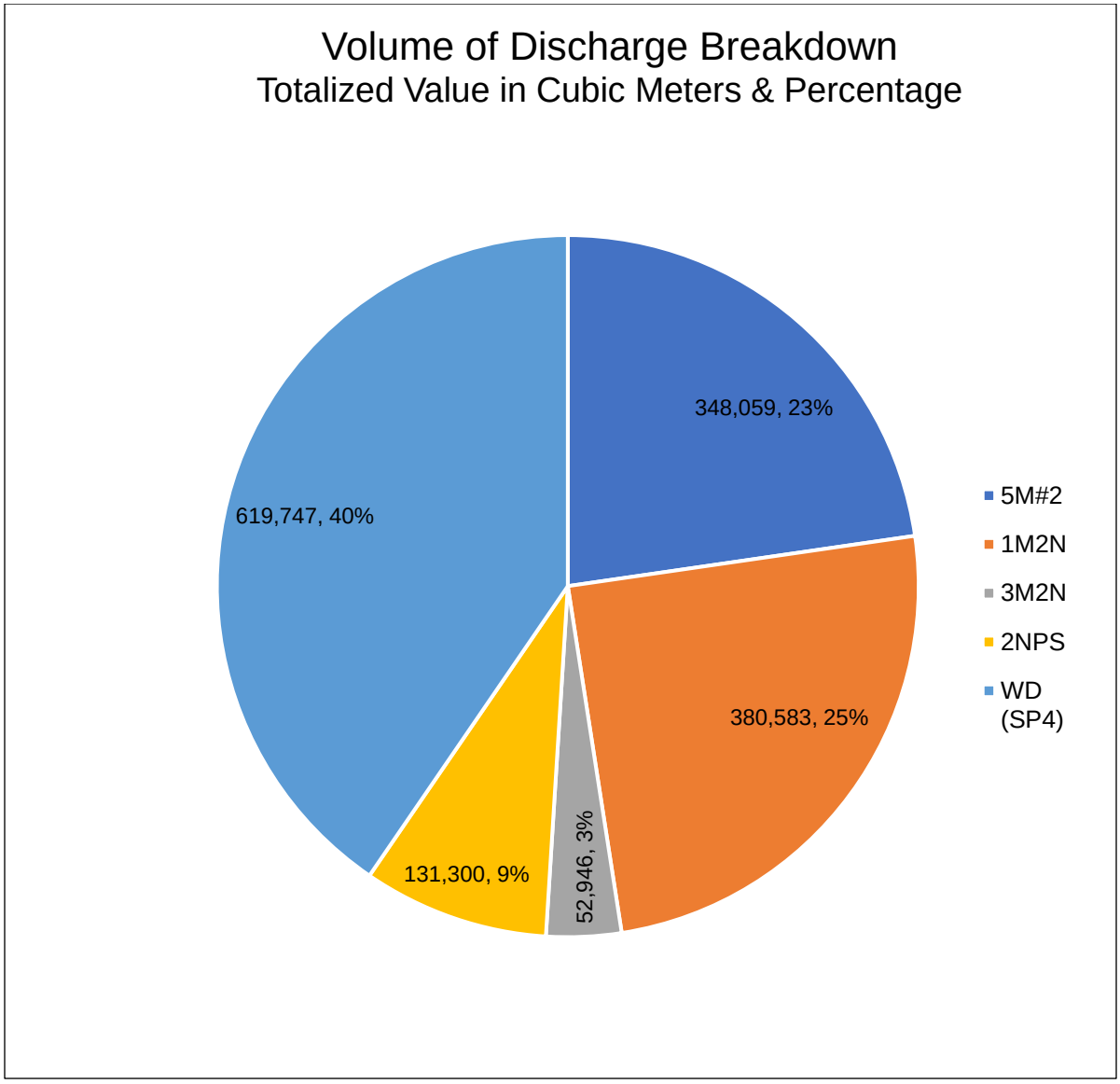

Figure 7: 2-North Volume of Discharge Breakdown from April 1, 2024 to June 30, 2024

4.1.1 Authorized Discharge Location – Settling Pond 4 (WD / SP4) EMS #E207409

Settling Pond 4 (WD / SP4) is the authorized discharge location for the NWMS, where permit limits are applied to water quality and quantity. Discharge occurred 91 out of 91 days, refer to Figure 8: Settling Pond #4, Cumulative and Daily Discharge Rates. The meter stopped recording

data for 13 days (May 17th until May 29th, 2024) resulting in missing flow and a permit non-compliance. Cumulative discharge at SP4 was calculated as 629,078 m^3 compared to 2023, Q1 where 889, 564 m^3 was discharged.

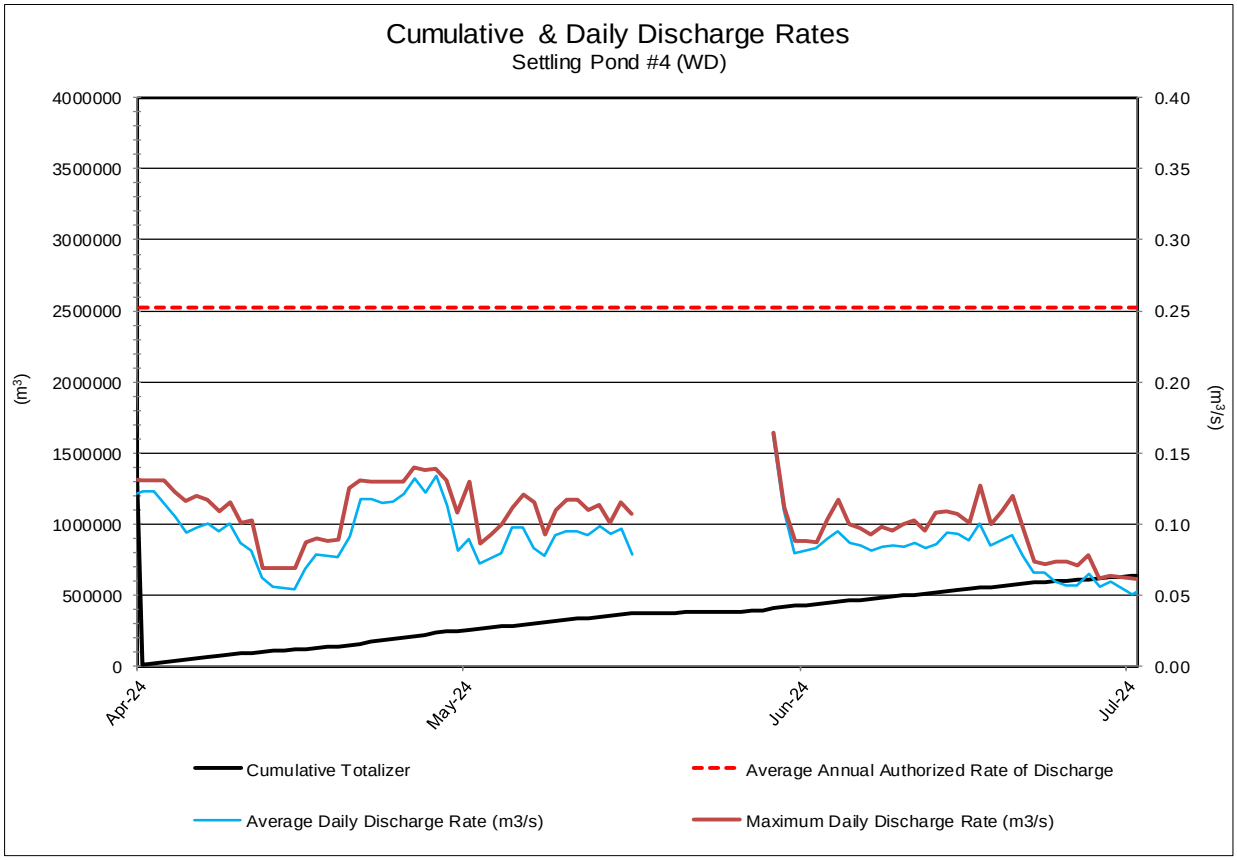

Figure 8: Settling Pond #4, Cumulative and Daily Discharge Rates

4.2. SOUTH END WATER MANAGEMENT SYSTEM:

The South Water Management System (SWMS) is managed by directing all water from the Passive Treatment System (PTS) into the 2-South and 3-South pits to maintain a water cover over the PAG-CCR (1.00 m) and maintain the water within the authorized works. Refer to Figure 9: South Water Management System (SWMS).

Flow data is presented tabularly in Appendix I, Tables 29 and 30 for the following sites:

- EMS ID E292127 - 2 South Pit Inflow and outflow, and
- EMS ID E292130 - Long Lake Seeps (LLS and LLSM)

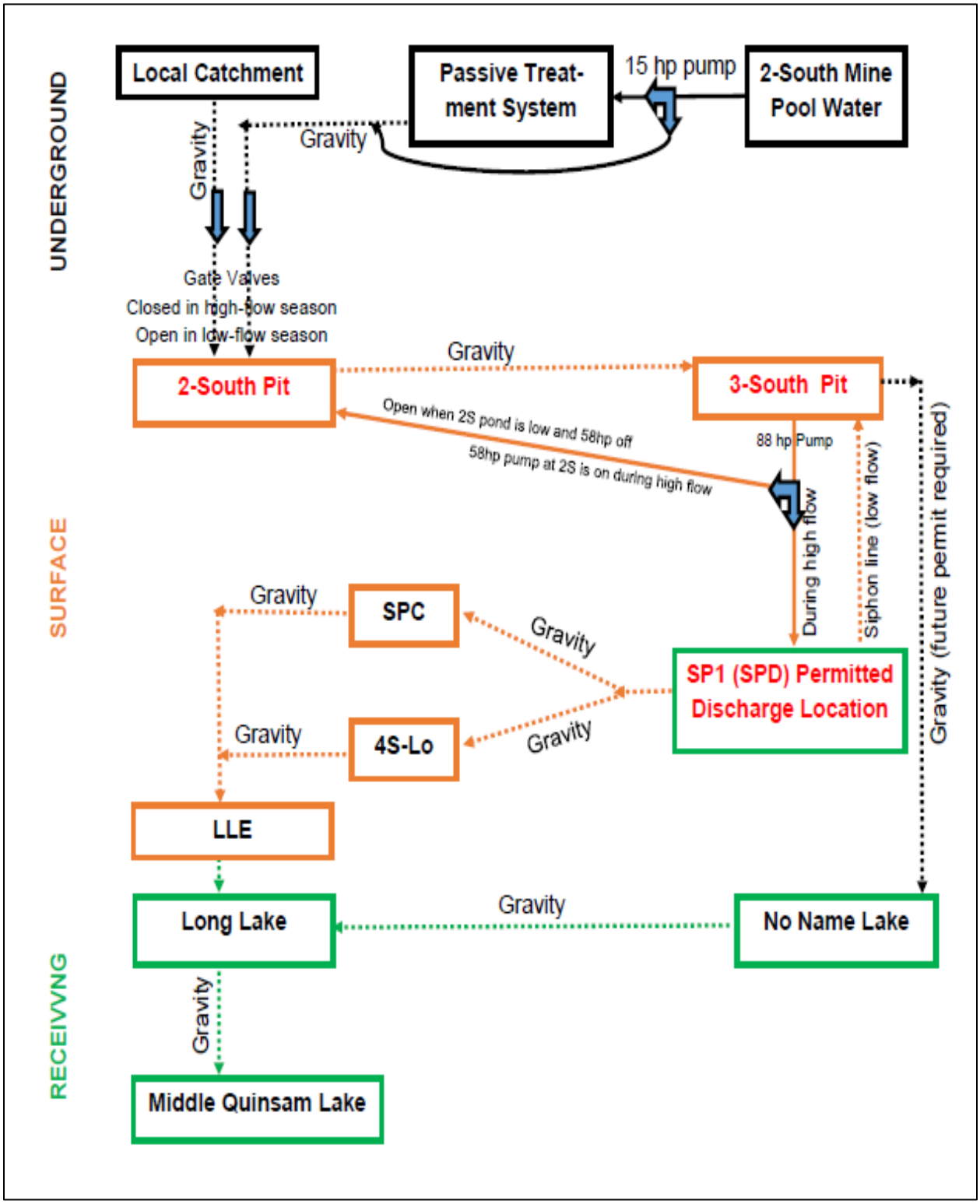

Figure 9: South Water Management System (SWMS)

The 2-South underground pump discharges 2-South mine water into the PTS and the 2-South pit. In Q1, water was pumped at an average of 7.8 L/s from the 2-South mine pool (INF) with approximately 4.0 L/s into the PTS and 3.8 L/s (untreated) into the 2-South pit. Refer to Figure 10: 2-South Mine Void Pumping Rates and Water Levels (INF).

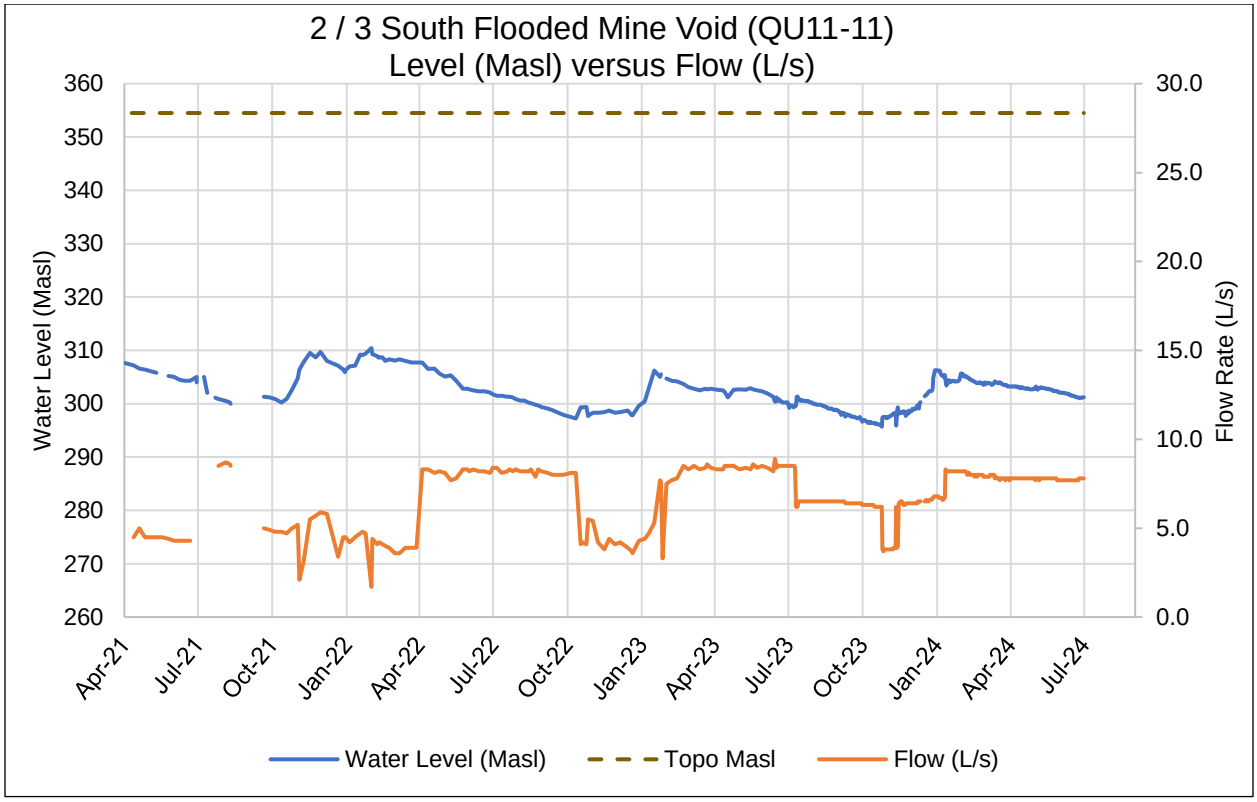

Figure 10: 2-South Mine Void Pumping Rates and Water Levels (INF)

The PTS includes two cells, the Biochemical reactor (BCREFF) and the Sulphide Polishing Cell (SPCEFF). Water flows passively through each cell (BCREFF into SPCEFF) with sulphate and iron reduction. This water is then gravity fed to the 2-South pit, entering at 2-South Inflow (2SI). At this location there is a V-notch weir coupled with a pressure transducer and a staff gauge (hydrometric station), where continuous inflow is monitored. Refer to Figure 11: 2-South Inflow - Flow versus Precipitation.

The 3-South pit maintains a water cover over the PAG-CCR via 2-South pit (seepage under the liner and overflow from the water cover) and precipitation. Water from 2-South pit flows down a channel from 2-South pit to 3-South pit. Continuous discharge is measured at location 2-South Culvert (2SC) into 3-South pit. Here there is an H-flume and a flow meter measuring continuous outflow from the 2-South pit and inflow to 3-South pit. Refer to Figure 12: 2-South Outflow into 3-South Pit – Flow versus Precipitation.

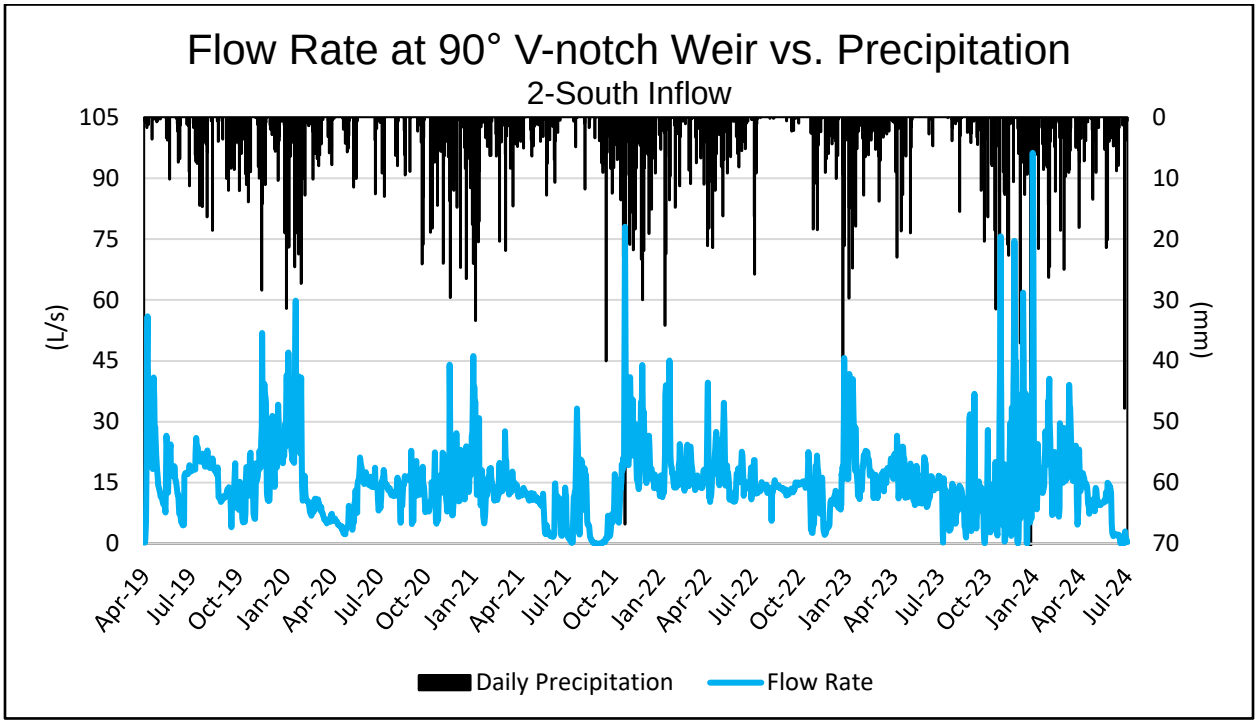

Figure 11: 2-South Inflow - Flow versus Precipitation

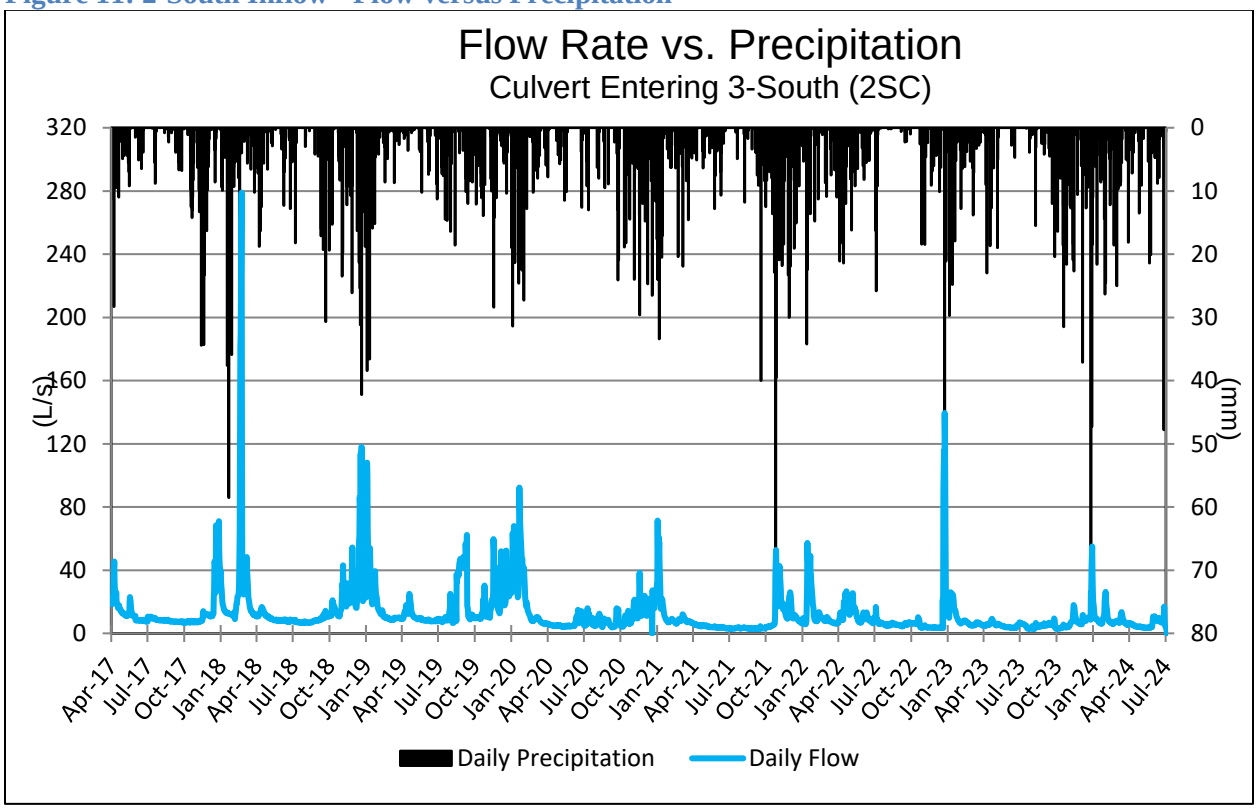

Figure 12: 2-South Outflow into 3-South Pit – Flow versus Precipitation

Water pumped from the 2-South and 3-South pits is pumped to Settling Pond #1 during spring, fall and winter. The pipeline is equipped with a flow meter to quantify pumping rates to Settling Pond #1. During summer if required, a gate valve can be opened at a junction on the 3-South pipeline located on the 2-South highwall. From here the 3-South water can be directed either into the 2-South Pit or to Settling Pond #1 (SPD / SP1). When water pumped from 3-South Pit is directed into 2-South pit, a closed loop circuit is maintained. As a result, SPD will stop discharging, reducing the load from mine contact water on the receiving environment. The valve directing water from 3-South to 2-South was not opened this quarter and all water has been directed to SP1. Refer to Figure 13: 2 / 3 South - Flow Rates (m3/s) displaying pumping rates from the 2 / 3 South pits into SP1 since June 2023.

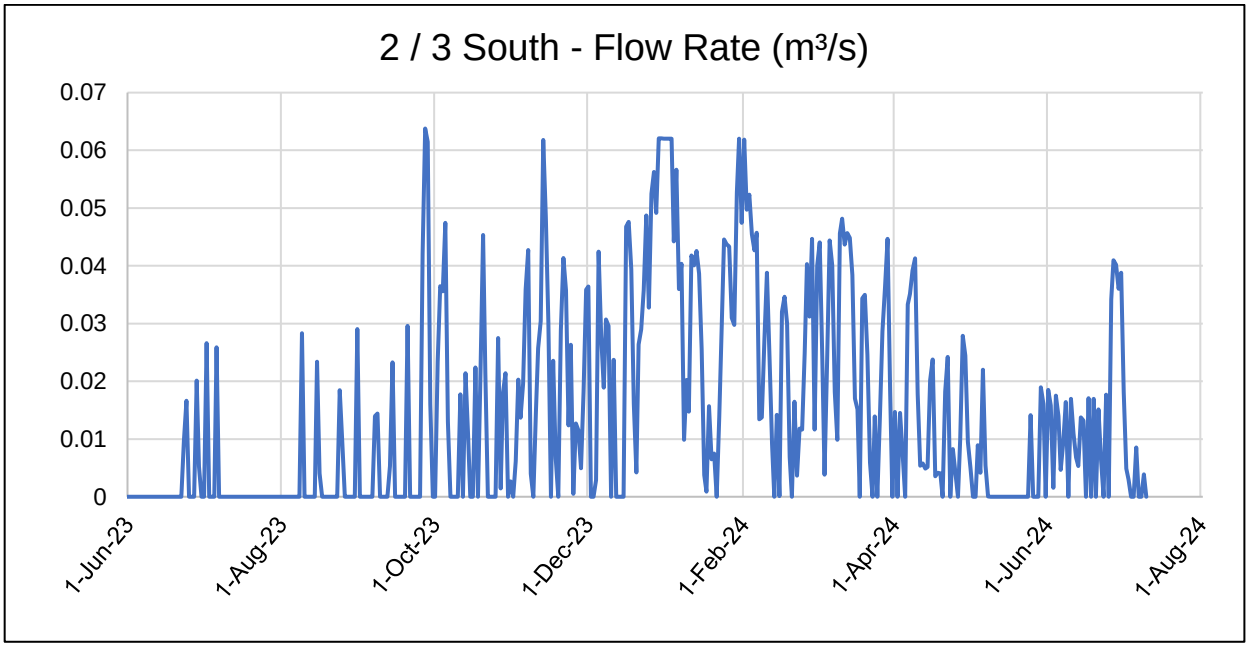

Figure 13: 2 / 3 South - Flow Rates (m^3/s)

4.2.1 Authorized Discharge Location - Settling Pond 1 (SPD / SP1)- EMS # E218582

SP1 is the authorized discharge location for the SWMS where permit limits are applied to water quality and quantity. Discharge occurred for 91 out of 91 days. The flow meter failed to record data (7-days) or was inaccurate (11-days). This resulted in a permit non-compliance. Figure 14: Settling Pond #1, Cumulative and Daily Discharge Rates. As a result, a cumulative quarterly total of 226,020 m^3 was recorded compared to last year, Q1 where 145,782 m^3 was discharged.

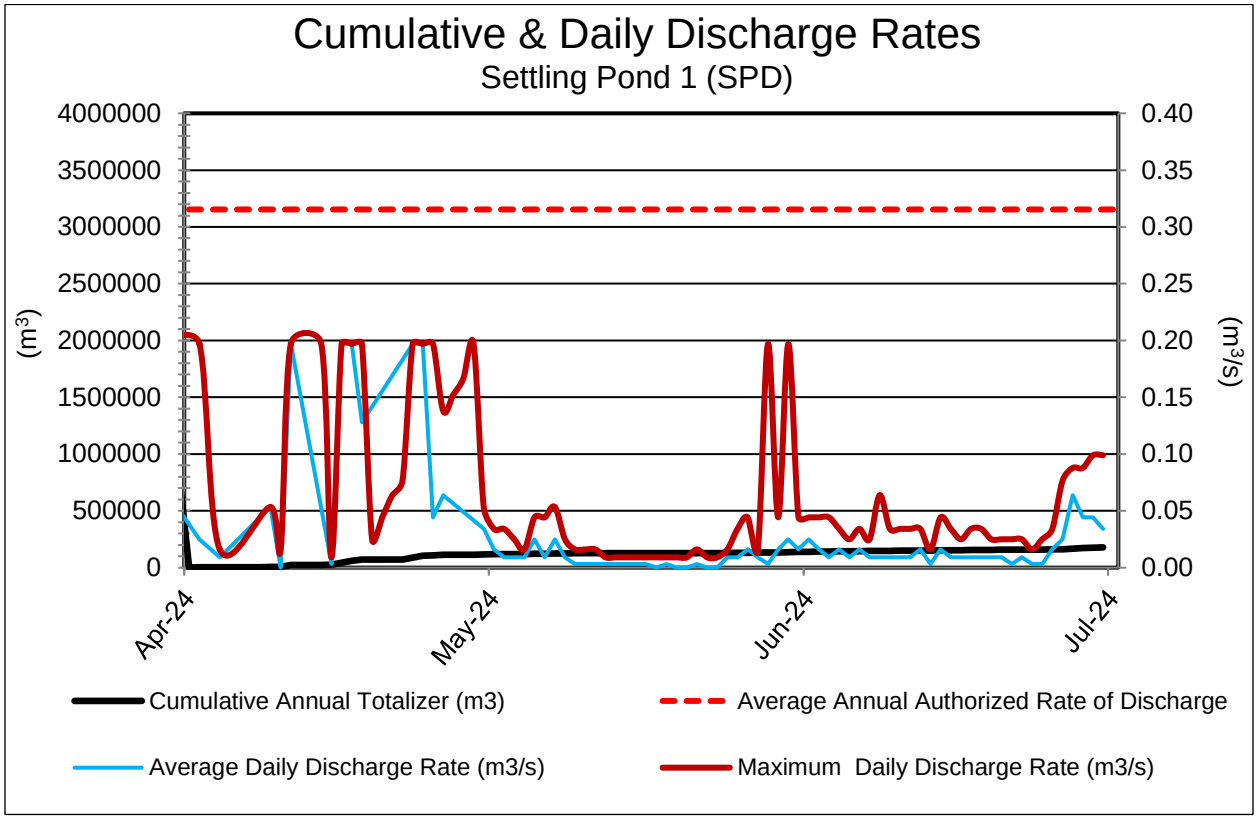

Figure 14: Settling Pond #1, Cumulative and Daily Discharge Rates

The South end mine water entering Long Lake Near the outlet (discharges from SP1) referred to as the Long Lake Entrance (LLE) is equipped with a flow meter measuring continuous discharge with water quality also characterized. Refer to Figure 15: LLE - Discharge versus Precipitation.

The water quality and quantity results corresponding to this location are available in Appendix I, Tables 20 and 30.

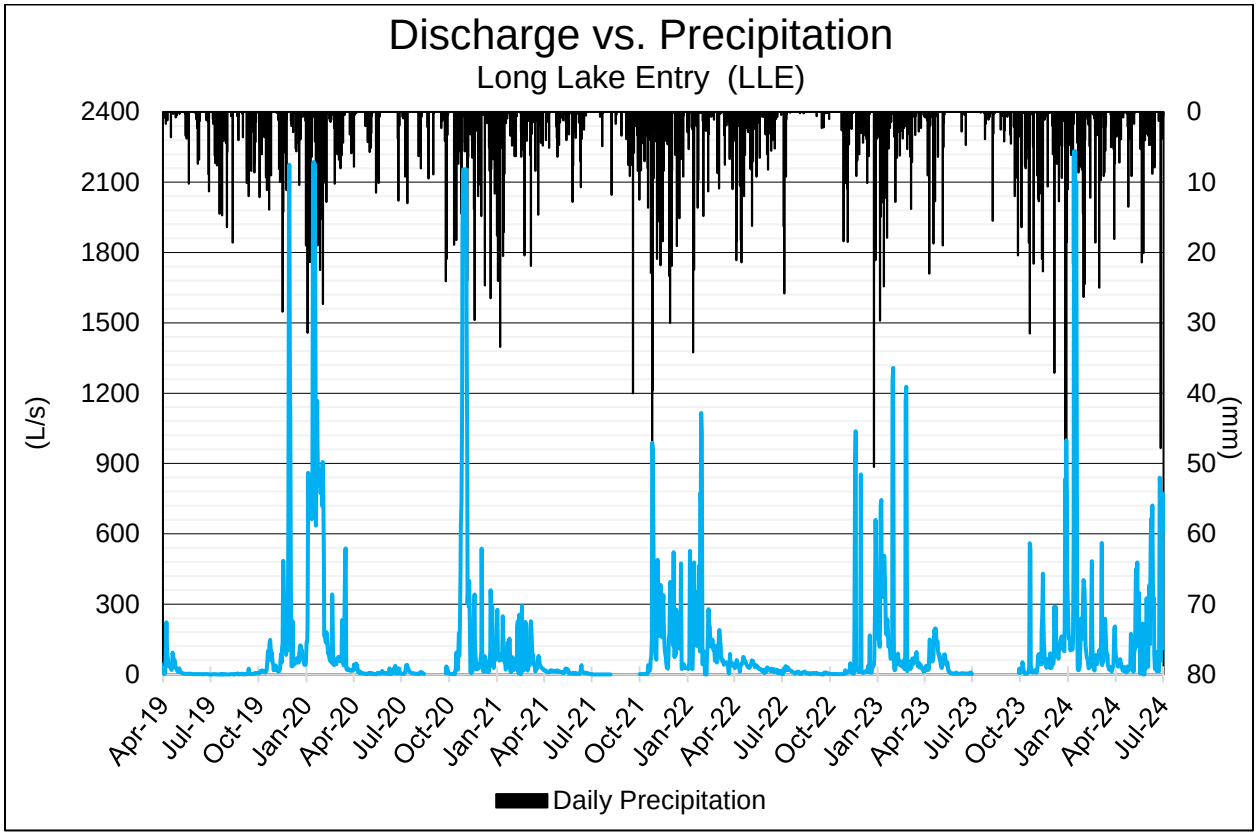

Figure 15: LLE - Discharge versus Precipitation

4.3 7-South Water Management

4.3.1 Authorized Discharge Location - 7SSD - EMS # E292069

Discharge did not occur during Q1 at 7SSD. Sedimentation pond outflow is controlled by pumping water accumulated in the pre-settling pond to the 7-South Portal Sump. This procedure reduces discharge, decreasing the overall parameter loading and the potential for adverse aquatic impact in the receiving environment as the biological availability for parameters of concern is much lower than under constant discharge conditions. Refer to Appendix 1, Tables 28 and 30 for 7SSD and 7S discharge rates, respectively and Figure 16: Stream 1, (7S) - Flow versus Staff Gauge, below.

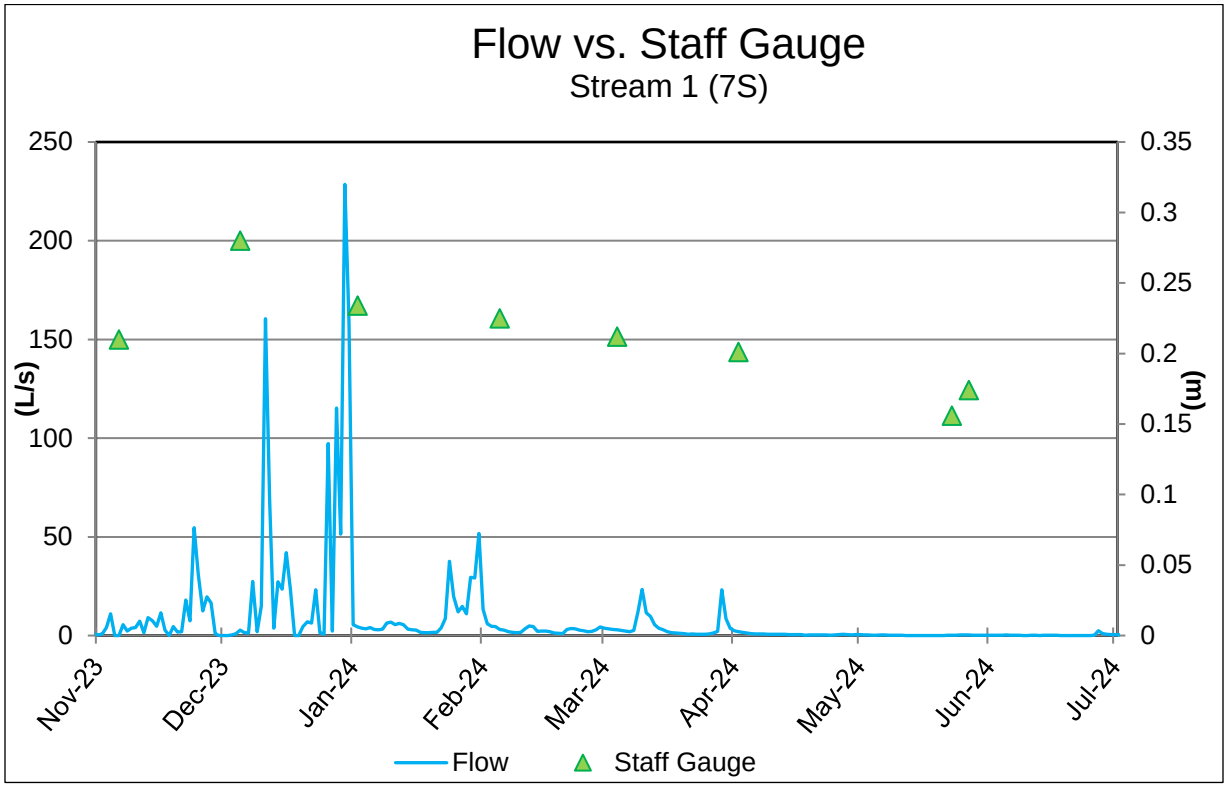

Figure 16: Stream 1, (7S) - Flow versus Staff Gauge

A quarterly sample was obtained from the ponded water (7SSD) and monthly samples collected from Stream 1, 7S. This quarter, parameters of interest remained within the specified limits of the Water Quality Guidelines (WQG) during all sampling events at 7S. The water quality results corresponding to these samples are available in Appendix I, Tables 23 and 25.

Stage pumping / dewatering efforts from 7-South mine underground sumps consist of 7-South Area 5 (7SA5) pumped into 1 Mains 7-South (1M7S) that combines with water in 7-South Portal (7SPS). Combined water is transported into the 5-South mine workings.

The 7SA5 pump was on standby for 60 days out of 91 days and 1M7S pump was on standby for 13 out of 91 days. The pipelines transporting water from these areas are equipped with totalizers that record water in cubic meters (m^3). For Q1, a total of 4,927 m^3 was pumped from 7SA5 into the 1M7S sump with 21,245 m^3 pumped into the 5-South underground mine. Refer to Figure 17 and Figure 18 for totalized values from these areas.

Historically, the 5-South mine water (5SMW), was pumped into 2-North underground mine until the pump failed in January 2022 and was not replaced. The 5SMW levels are monitored (Figure 19: 5-South Flooded Mine Water Level) to ensure water remains below the 5-South portal, 290 meters above sea level (m ASL).

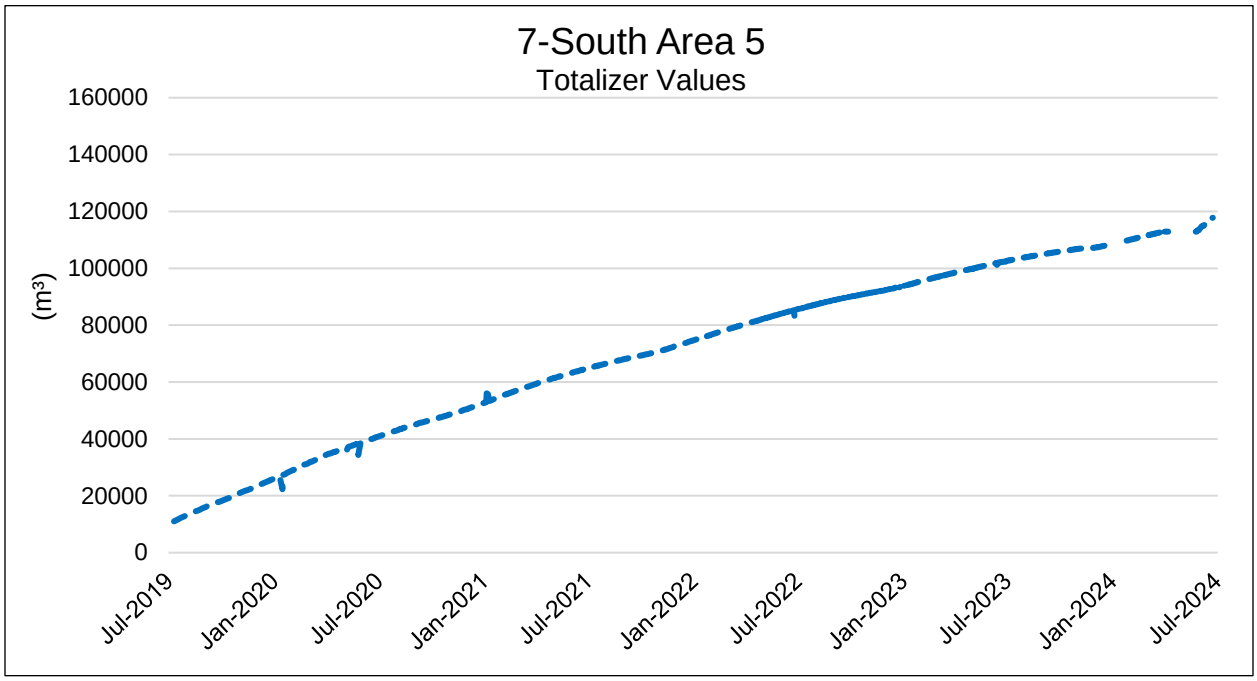

Figure 17: 7-South Area 5 Totalizer Values

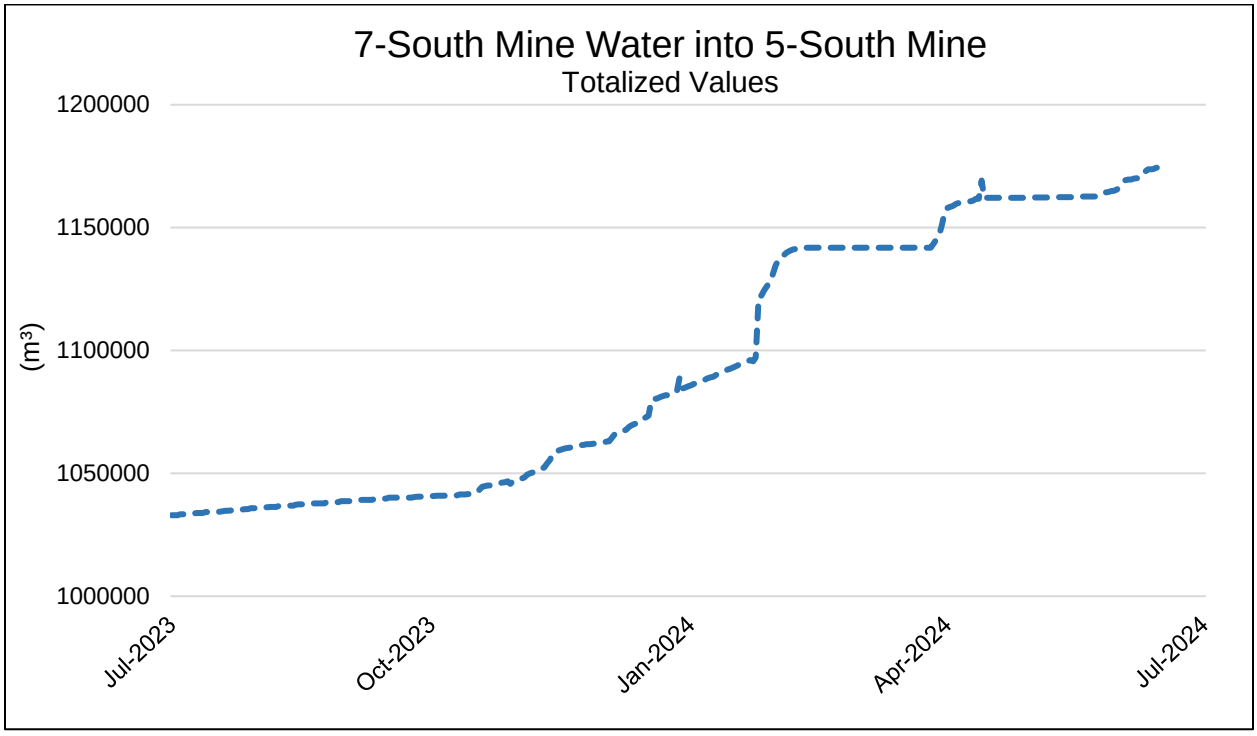

Figure 18: 7-South Mine Water Pumped into 5-South Mine - Totalized Values

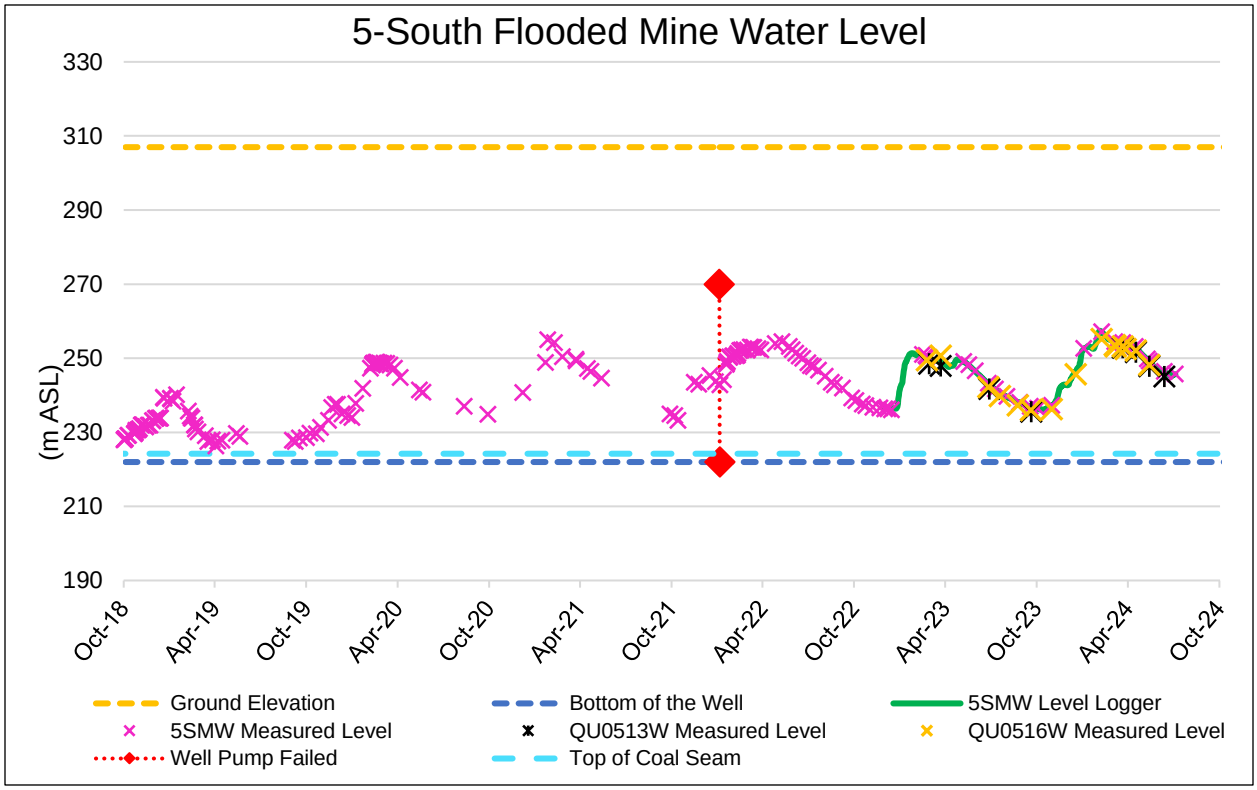

Figure 19: 5-South Flooded Mine Water Level

5.0 Receiving Environment Water Quantities & Flow Rates

Flow data is presented tabularly in Appendix I, Table 30 for the following sites:

- EMS ID 126402 - Quinsam River at Argonaut Bridge (WA), (upstream of Mine influence)
- EMS ID 900504 - Middle Quinsam Lake Outlet (WB),
- EMS ID E219412 - Long Lake Outlet (LLO),
- EMS ID E297232 - Iron River Site 8 (IR8)

Flow data for WA has been obtained from the Environment Canada weather monitoring station.

The Quinsam environmental department is establishing and verifying flow curves for all sites required under the effluent permit. Flow rates are seasonal with peaks correlating with heavy rains. The below hydrographs display the flow conditions for the site up to July 2024.

Monthly (April 1st through June 30th) precipitation accumulations of 40.7 mm, 74.8 and 92.2 mm were received at the site, respectively. With the greatest accumulation observed in the month of June (92.20 mm). June experienced the most isolated events of heavy rain (i.e., on June 26th the site experienced 47.8 mm of precipitation). Total accumulated precipitation was 207.7 mm during Q1. Precipitation data for the site is included in Appendix I, Table 31 and Figure 20, below.

Refer to Figure 21 through Figure 24, below for site Hydrograph's.

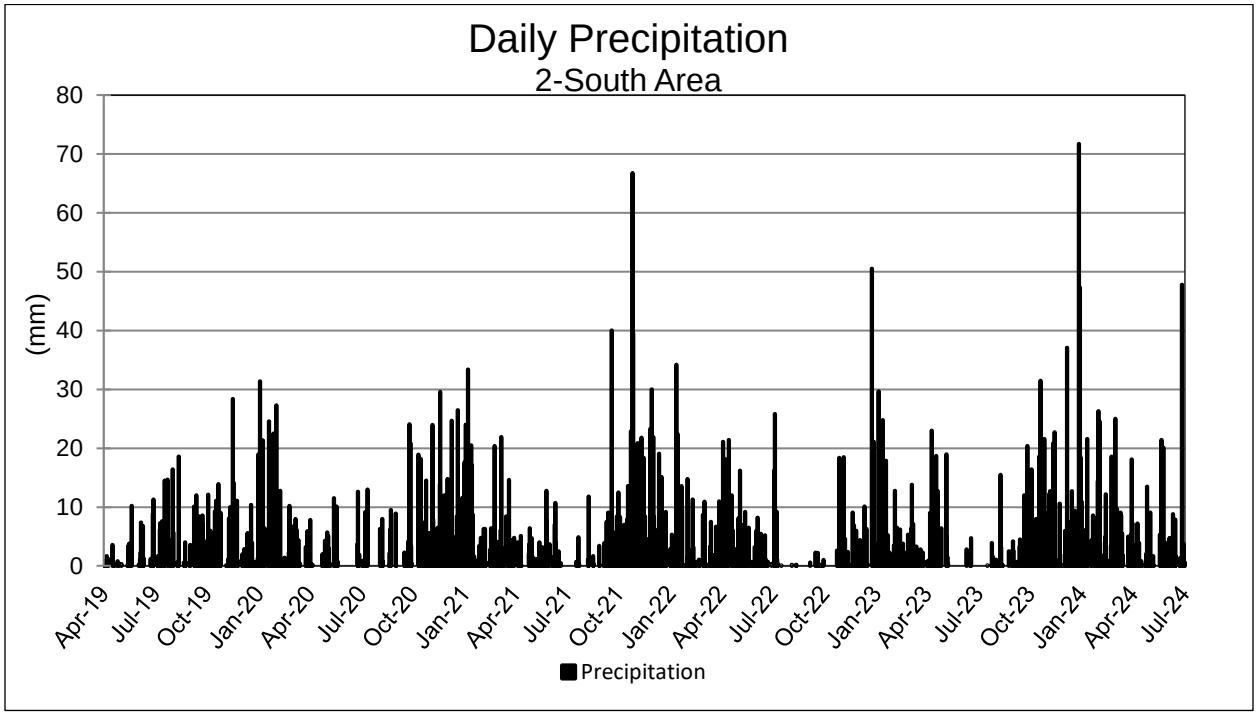

Figure 20: Daily Precipitation

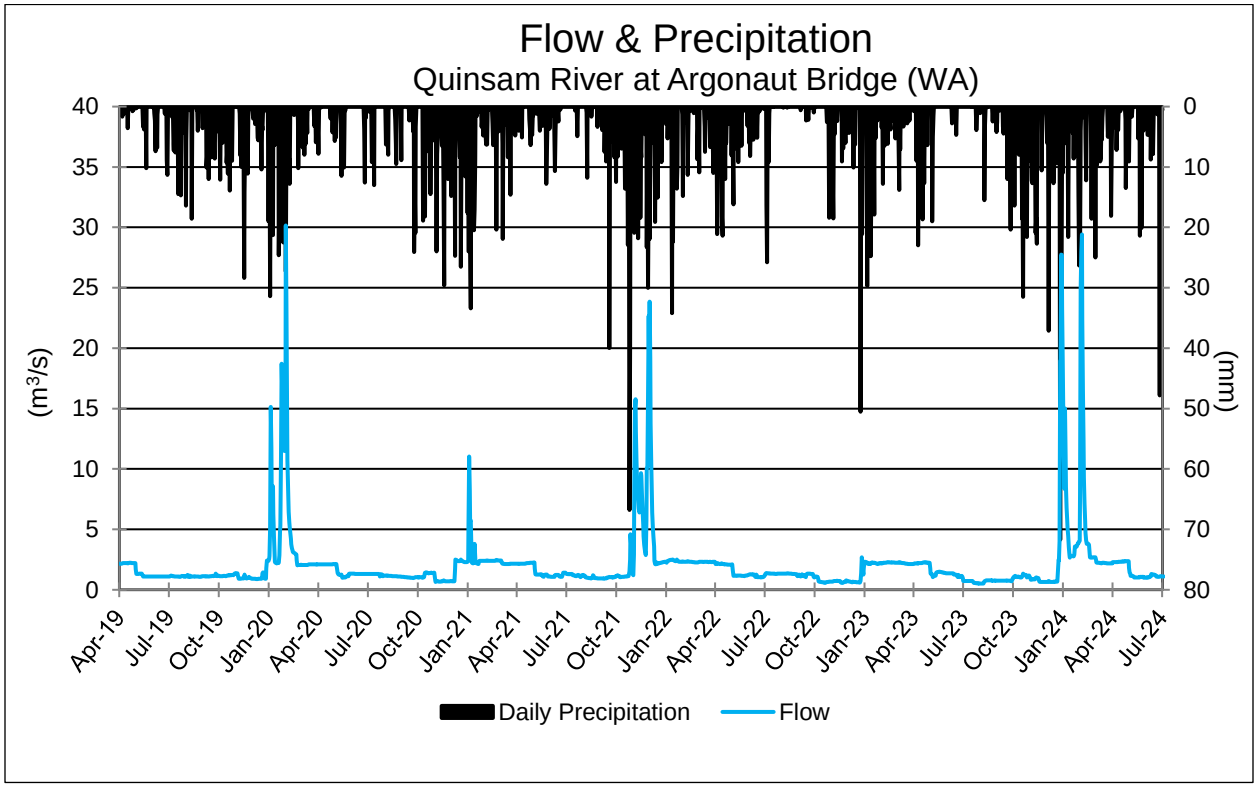

Figure 21: Quinsam River at Argonaut Bridge (WA)

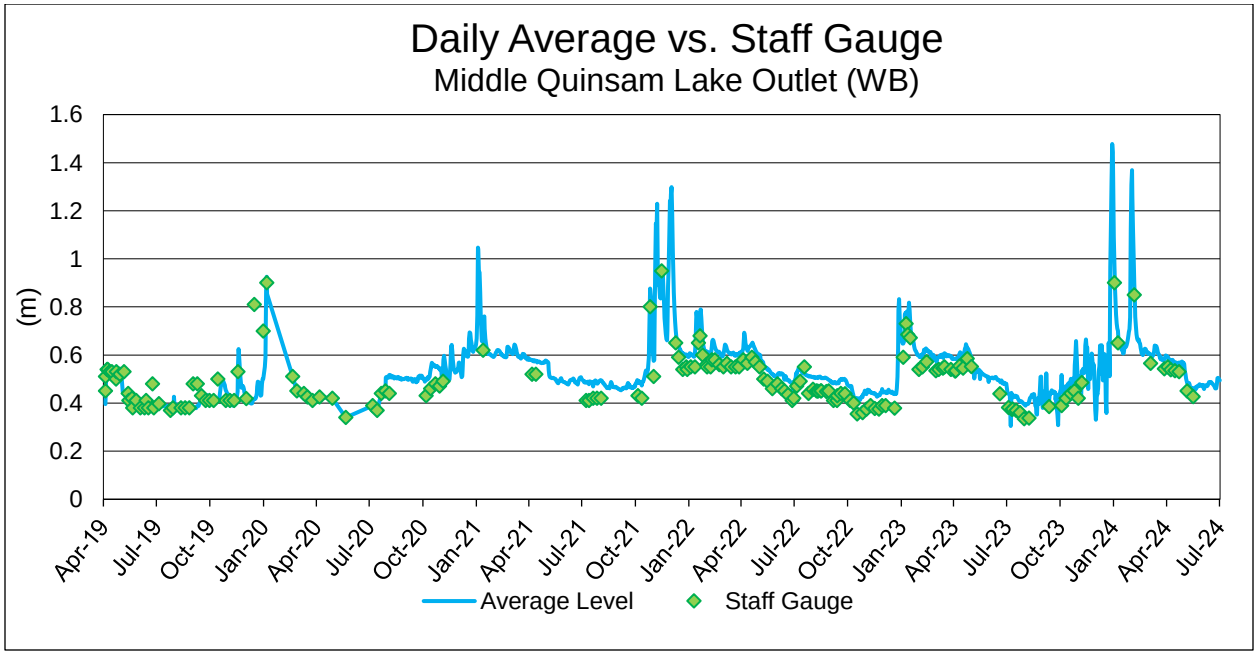

Figure 22: Middle Quinsam Outlet (WB)

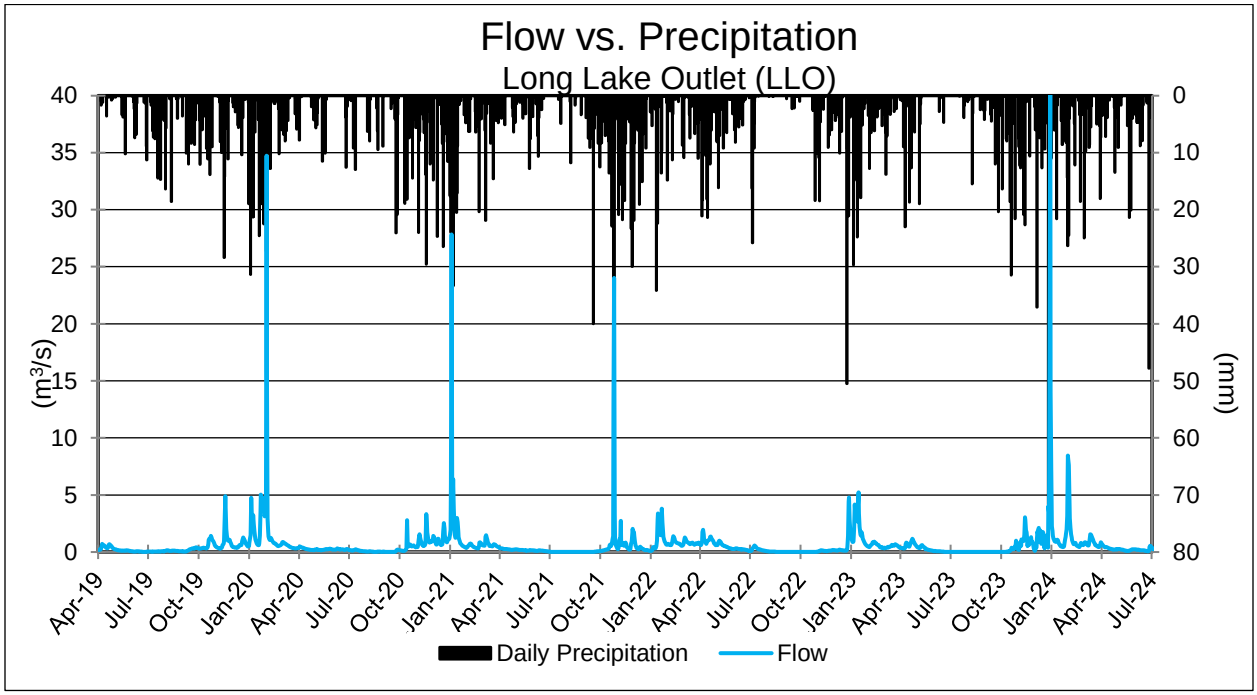

Figure 23: Long Lake Outlet (LLO)

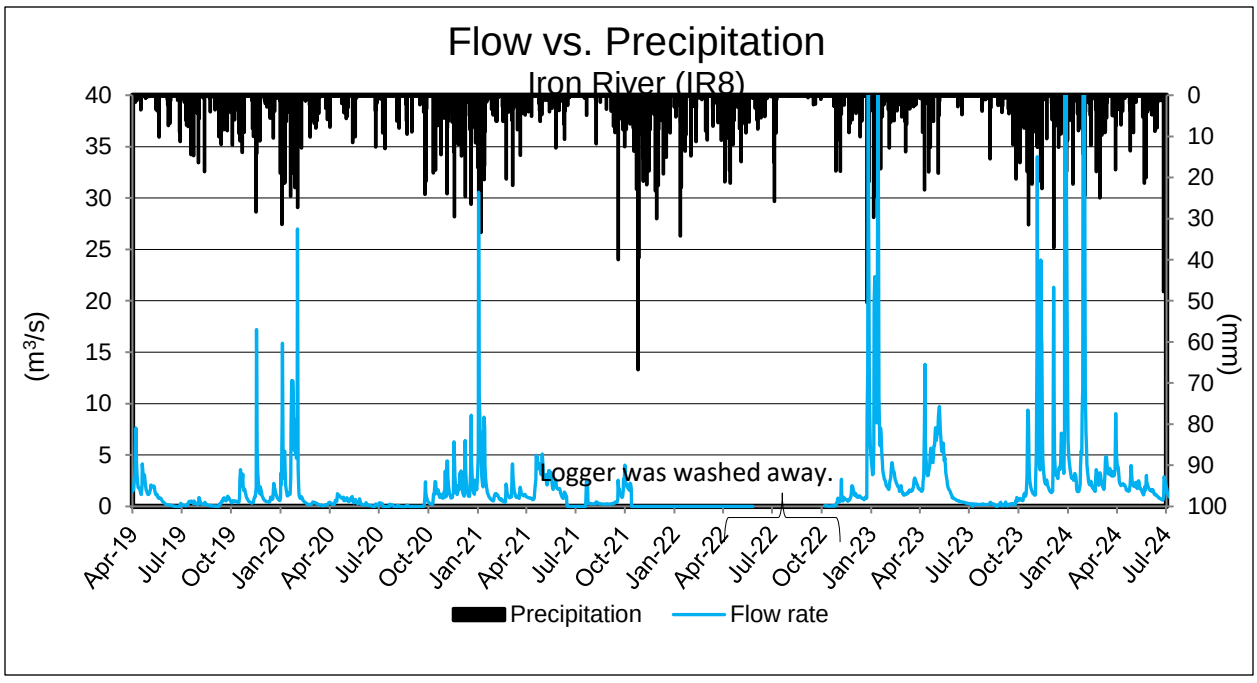

Figure 24: Iron River (IR8)

5.1 Receiving Environment (Streams and Lakes) Monitoring Sites

Monitoring stations captured within the Quinsam Mine Site are listed in Table 3, below.

Table 3: Receiving Water (Streams and Lakes) Monitoring Sites

Streams	Lakes	Site Code for Lakes
North Mining Operation		
Quinsam River at Argonaut Road (WA) (EMS # 0126402) – Upstream of mine influence Outflow from Middle Quinsam Lake (WB) (EMS # 0900504)	Middle Quinsam Lake (MQL) Centre at depths of 1 metre (1m), 4 metre (4m), 9 metre (9m) and 1 metre from bottom (1MB) (EMS # E206618)	MQL1, MQL4, MQL9 and MQLB
South Mining Operation		
Long Lake Outlet (LLO) (EMS # E219412) No Name Lake Outlet (NNO) (EMS # E217017)	Long Lake at Centre (LLM) at depths of 1m, 4m, 9m, and 1MB (EMS # E206619) No Name Lake (NNL) at depths of 1m, 4m, 9m, and 1MB (EMS # E217018)	LLM1, LLM4, LLM9 and LLMB NNL1, NNL4, NNL9 and NNLB
7-South Mining Operation		
Quinsam River upstream of 7 South Mining Operation (QRDS1) (EMS # E286930) Quinsam River downstream of 7 South Mining Operation (7SQR) (EMS # E292113)	Lower Quinsam Lake (LQL) (EMS # E292118) at depths of 1m, 4m, 9m, and 1MB	LQL1, LQL4, LQL9 and LQLB
Quinsam River downstream of confluence with Iron River (IRQR) (EMS # E299256)		

5.1.1 WATER HARDNESS

For the purposes of this report, water quality in the receiving environment is compared to Acute and Chronic BC Water Quality Guidelines for Freshwater Aquatic Life (WQG). For those parameters that are hardness dependent the guideline has been derived using background (i.e., monitoring location WA) hardness (~30mg/L) at all stations. Quinsam Coal has adopted this approach for the Iron River, as well. Using a hardness of 30 mg/L provides a conservative comparison of receiving environment water quality when comparing to hardness dependent WQG's (*i.e.* dissolved sulphate). Total aluminum (Al-T) and dissolved copper (Cu-D) are the only parameters where the actual ambient water chemistry is used.

5.1.2 TOTAL ALUMINUM

The chronic WQG for Al-T are based on individual results rather than averages over a specific period. These guidelines aim to protect aquatic organisms from chronic exposure to elevated aluminum levels. The chronic WQG equation is valid between hardness 10 and 430 mg/L, pH 6 and 8.7, and DOC 0.08 and 12.3 mg/L, which are the ranges of data used to derive the MLR slopes. The BC WQG Calculator was adapted from the Federal Water Quality Guideline for Al and is designed to only work within the domain of the MLR model.

The B.C. WQG for total Aluminium equation:

B.C. WQG (µg/L) = (exp([0.645 × ln(DOC)] + [2.255 × ln(hardness)] + [1.995 × pH] + [-0.284 × (ln(hardness) × pH)] -9.898))/3

Refer to the below graphs, Figure 25 and Figure 26, displaying the concentrations of Al-T compared to the variable chronic WQG's for receiving and non- receiving environment monitoring locations.

As displayed only NNL (4m, 9m and 1MB) was elevated above the chronic WQG for Al-T.

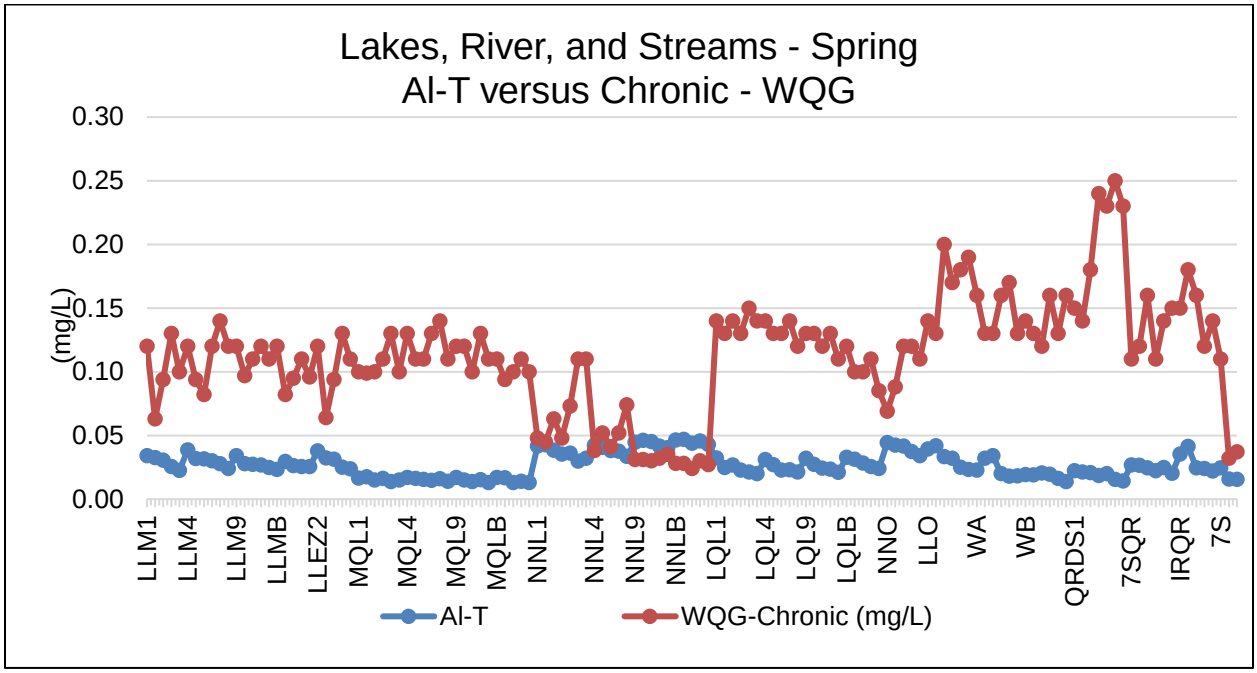

Figure 25: Receiving Environment Sites – Al-T versus Chronic WQG's

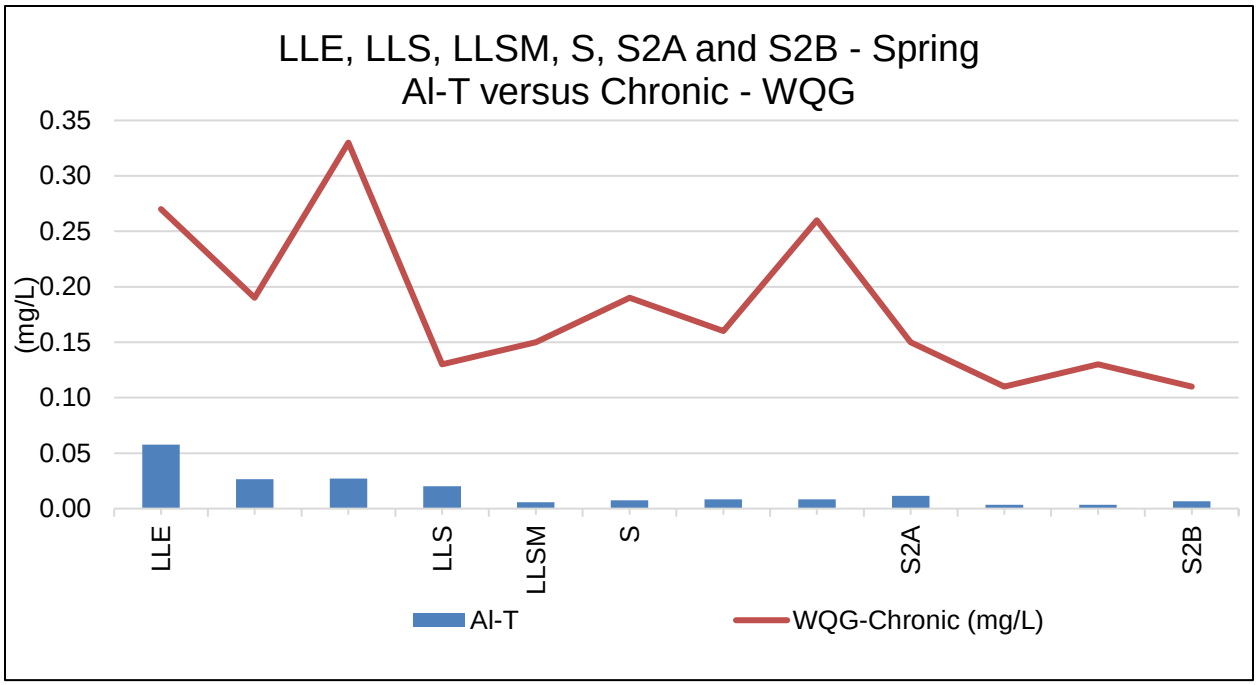

Figure 26: Non-Receiving Environment Sites – Al-T versus Chronic WQG's

5.1.3 Dissolved Copper

To obtain the dissolved copper Water Quality Guideline ambient water quality from the site-specific receiving environment sites is uploaded into the British Columbia Copper Biotic Ligand Model Database. The database uses specific water chemistry per site such as hardness, pH, temperature and dissolved organic carbon and derives a site specific acute and chronic WQG for copper. Appendix 1, Tables 3 and 4 provide a summary of those parameters observed above WQG's for spring monitoring.

Refer to the below graph's (Figure 27 though Figure 28), that display the Acute WQG's derived for copper compared to individual results from receiving and non-receiving environment sites during spring.

Receiving water quality during spring mostly remained below the acute copper guidelines derived from site specific chemistry. No Name Lake at 9m and 1MB were the only sites elevated above the acute WQG's. Non-receiving environment sites (LLE, 7S, LLS, LLSM, S, S2A and S2B) remained below acute WQG's.

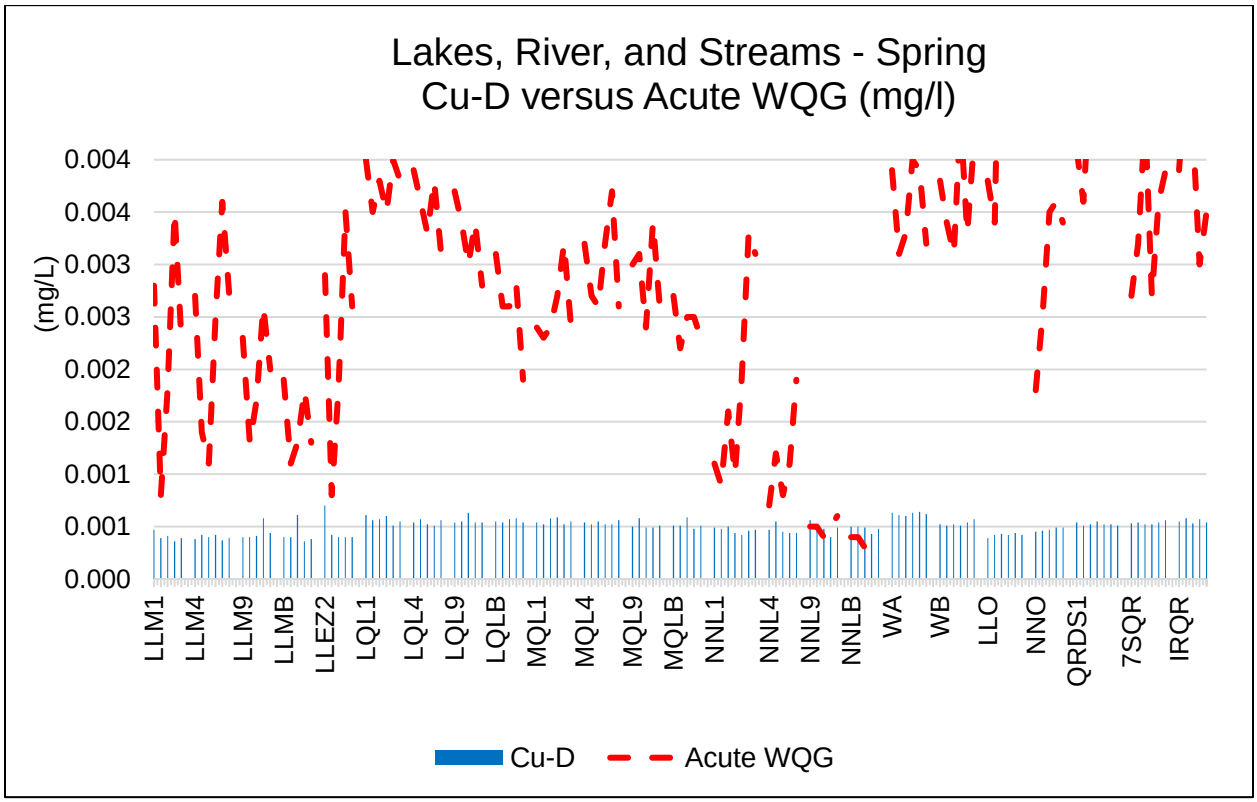

Figure 27: Receiving Environment Site – Cu-D versus Acute WQG's

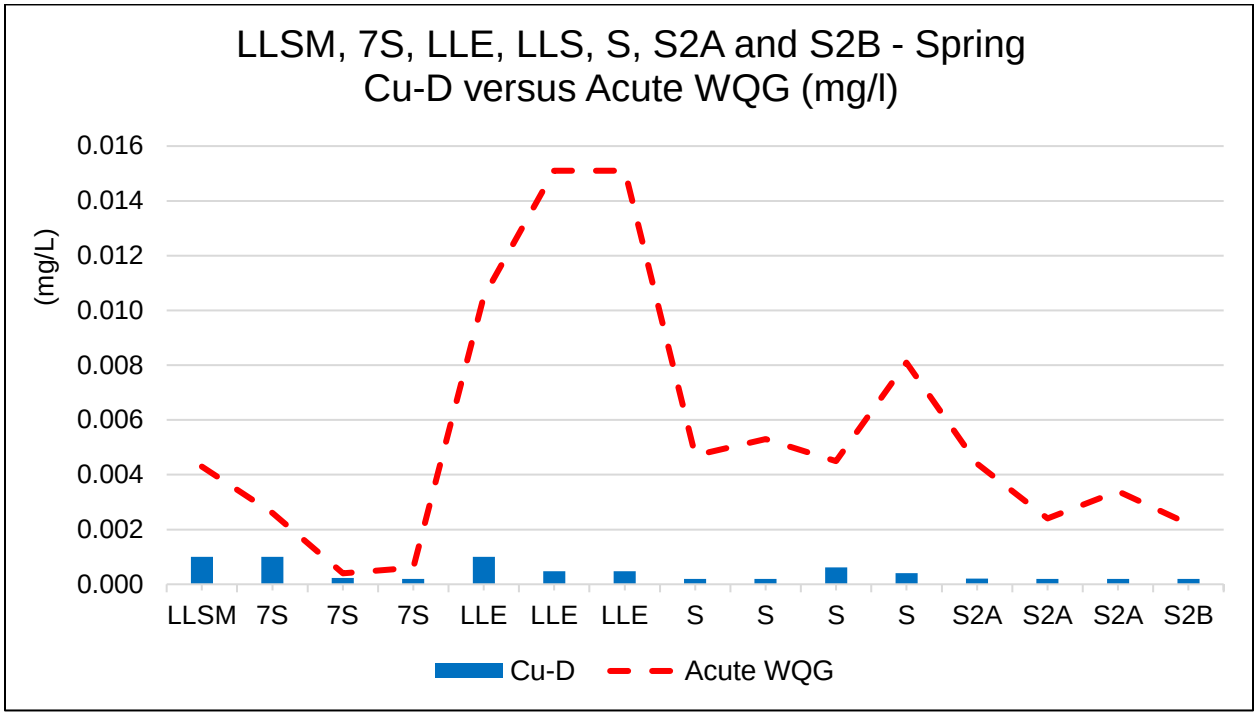

Figure 28: Non-Receiving Environment Site – Cu-D versus Acute WQG's

Chronic WQG's are compared to individual results (Figure 29) and the average of 5 weeks compared to chronic WQG's (Figure 30).

Individual results compared to chronic copper WQG 's was elevated upstream and downstream of mine influence, expect at LLO and QRDS1 (Figure 29). Averaged results were elevated above the chronic WQG's upstream of mine influence on the Quinsam River (WA) and in the lakes (NNL, LL, MQL and LQL) except in LL at 4m and LQL at 1m and 4m depths. All other locations downstream of mine influence (LLO, WB, QRDS1, 7SQR and IRQR) remained below the chronic WQG's (Figure 30).

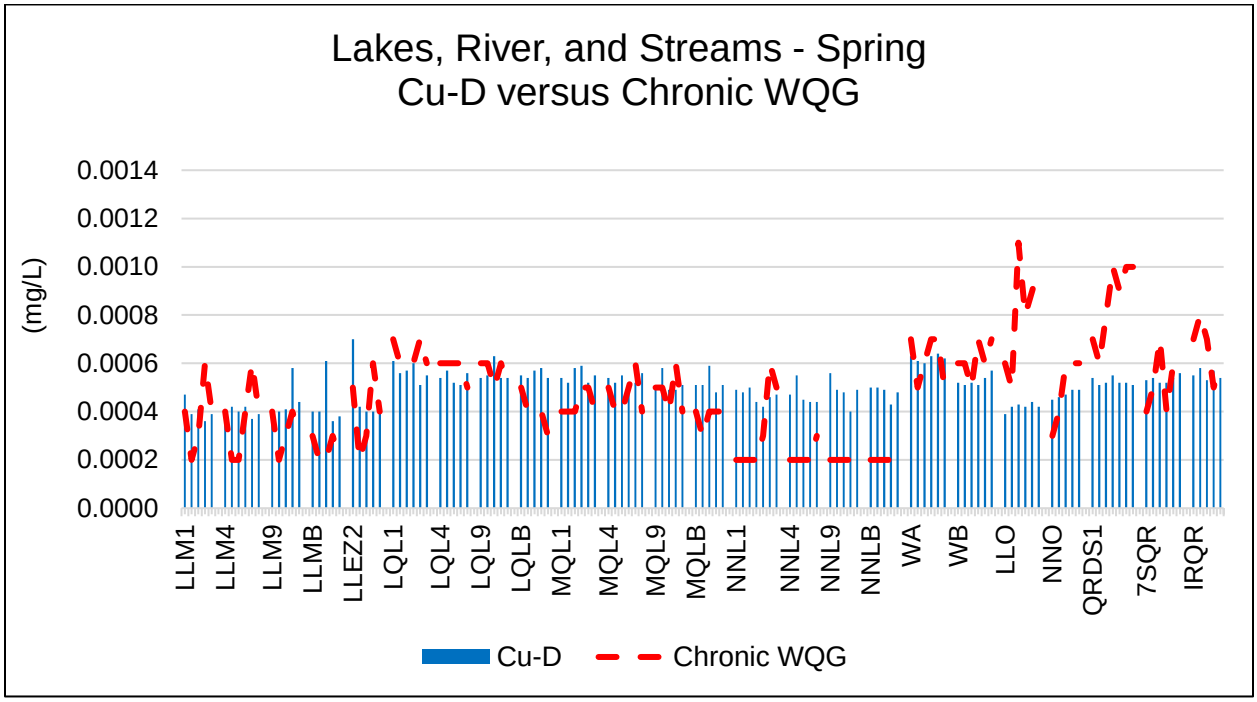

Figure 29: Receiving Environment Sites – Cu-D versus Chronic WQG's

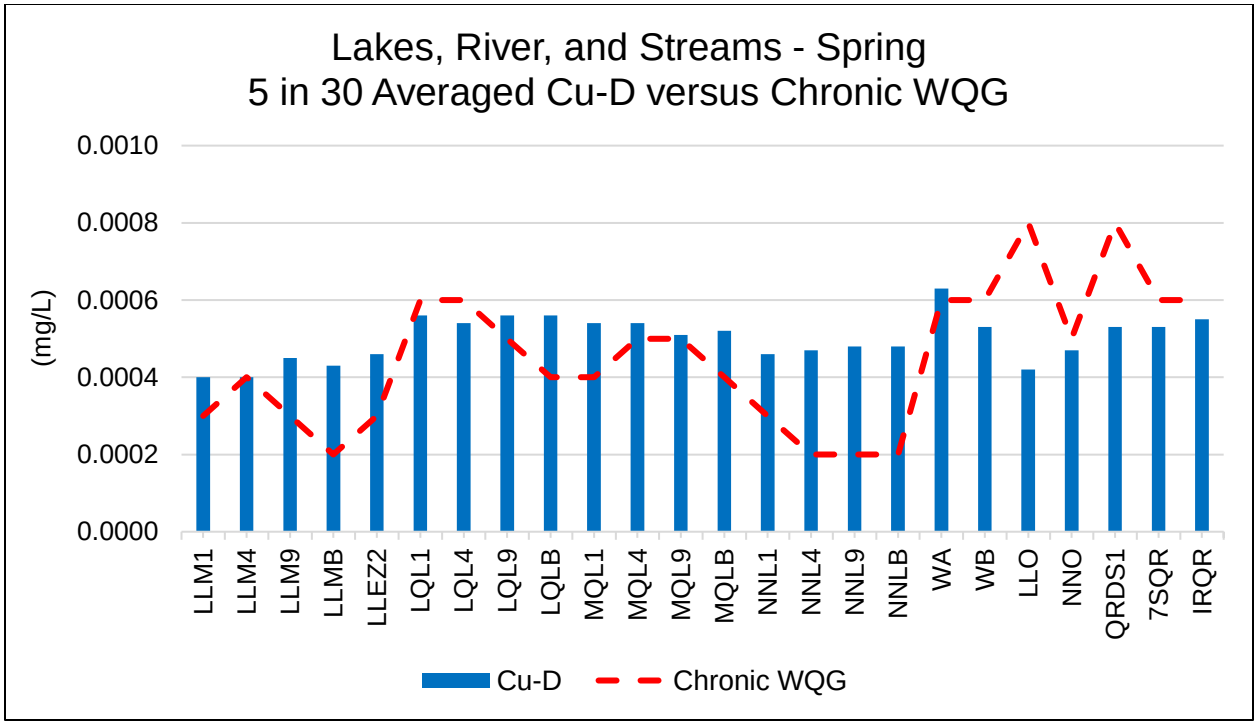

Figure 30: Receiving Environment Sites – Averaged Cu-D versus Chronic WQG's

5.2 LAKES

The spring lake monitoring program included No Name Lake (NNL), Long Lake (LLM), Middle Quinsam Lake (MQL) and Lower Quinsam Lake (LQL). Beside the parameters (total aluminum and dissolved copper) no other parameter concentrations were trending above WQG's for spring monitoring. Appendix 1, Tables 3, 4 and 42 display parameter concentrations compared to WQG's.

Spring monitoring is meant to capture the spring freshet or turn over event when the deeper portions (hypolimnion) have been replenished with dissolved oxygen as the ambient temperature increases. The water near the surface of the lake (epilimnion) is replaced with the water near the bottom of the lake (hypolimnion) to establish a homogenous mixture. This is called stratification. The cold-water sinks to the bottom while the warm water floats to the top. There are typically three layers, the epilimnion (top), thermocline (middle), and hypolimnion (bottom). Spring marks the transition from winter to spring. Turnover, also called lake mixing, is a natural process that occurs when the water in a lake mixes vertically.

Depth profiling for physical parameters is performed at every meter from surface to 1 meter from bottom with an Exo Sonde that captures pH, conductivity, temperature, dissolved oxygen (DO) and oxidation reduction potential (ORP). Water chemistry samples are collected for laboratory analysis at 1 metre (1m), 4 metre (4m), 9 metre (9m) and 1 metre from bottom (1MB). Appendix 1, Table 38 through 41 display the depth profiling results for the lakes.

Noteworthy observations resulting from the lake monitoring program include:

- Average sulphate concentrations were measured below the water quality guideline (128 mg/L) in all lakes.
- Dissolved copper was elevated in all lakes, possibly related to spring turnover.
- NNL (4m, 9m and 1MB) was elevated above the chronic WQG for Al-T.

Increased temperature gradients were evident in all lakes as monitoring progressed over the 5 weeks of sampling. Lake temperatures on surface increased from 7.92 (NNL) degrees Celsius to 13.3 degrees Celsius (LQL) over the 5 weeks of sampling. Refer to Figure 31 and Figure 32 for temperature versus depth comparison in the lakes.

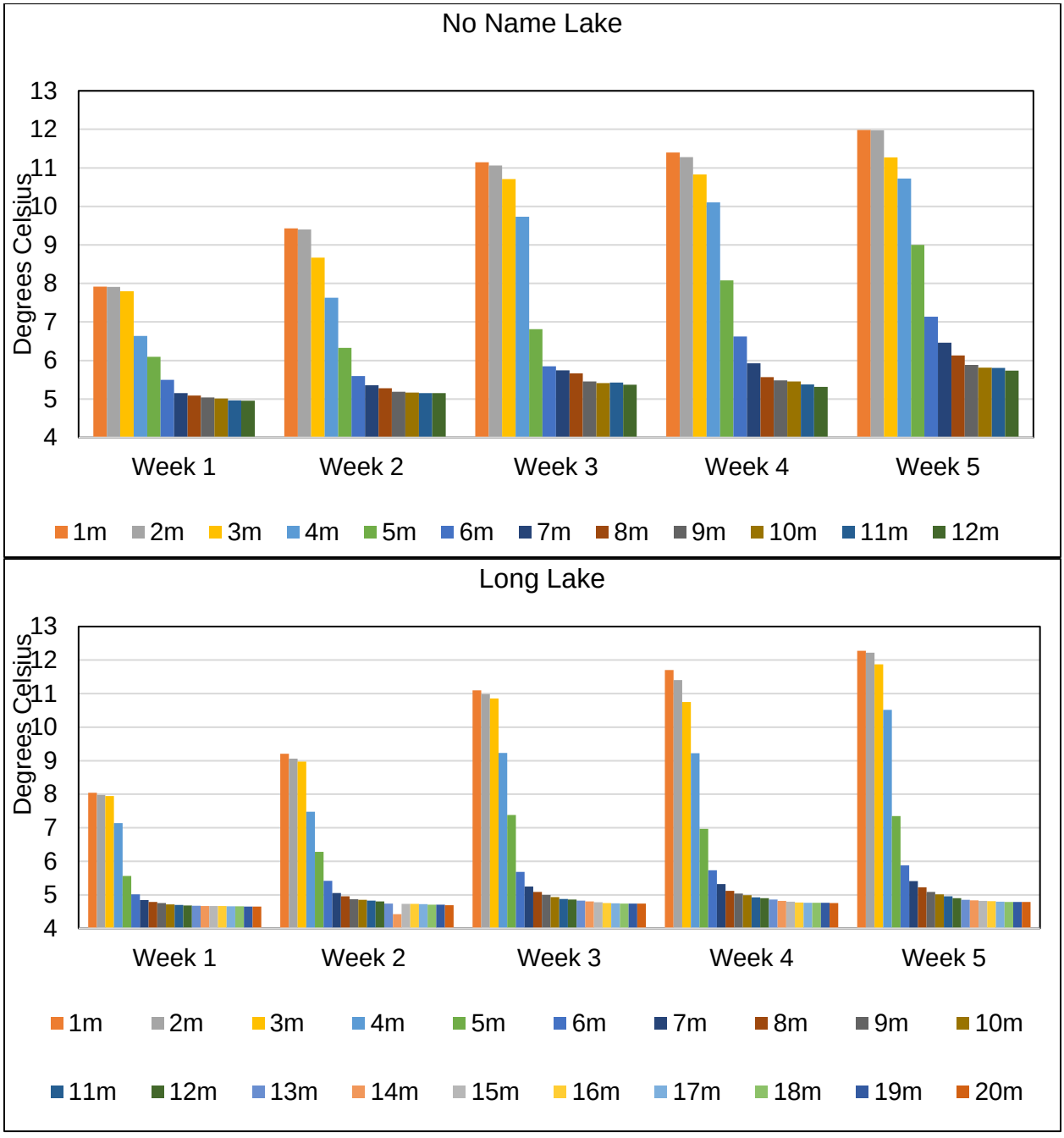

Figure 31: No Name and Long Lake's - Temperature versus Depth

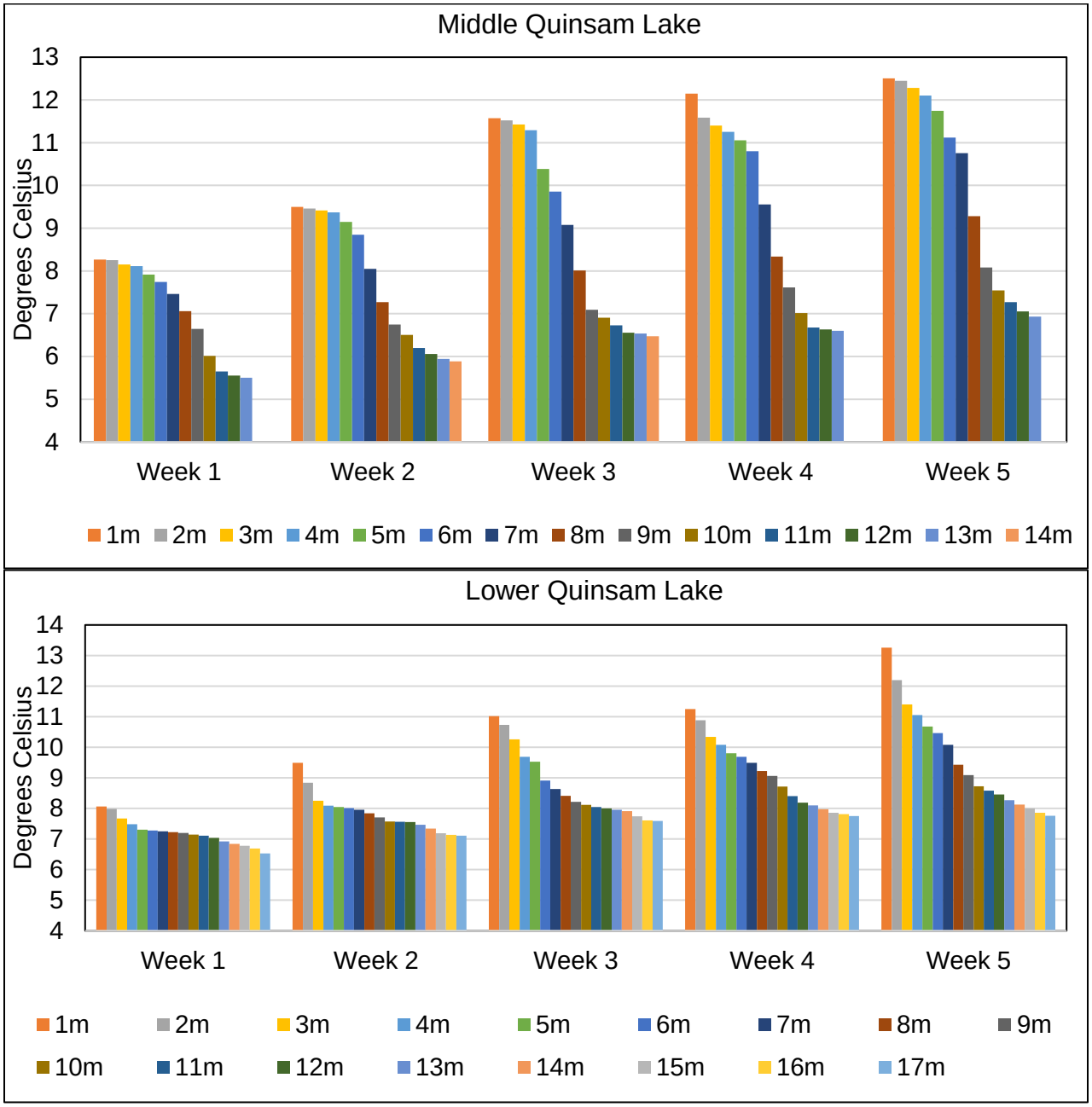

Figure 32: Middle and Lower Quinsam Lake's - Temperature versus Depth

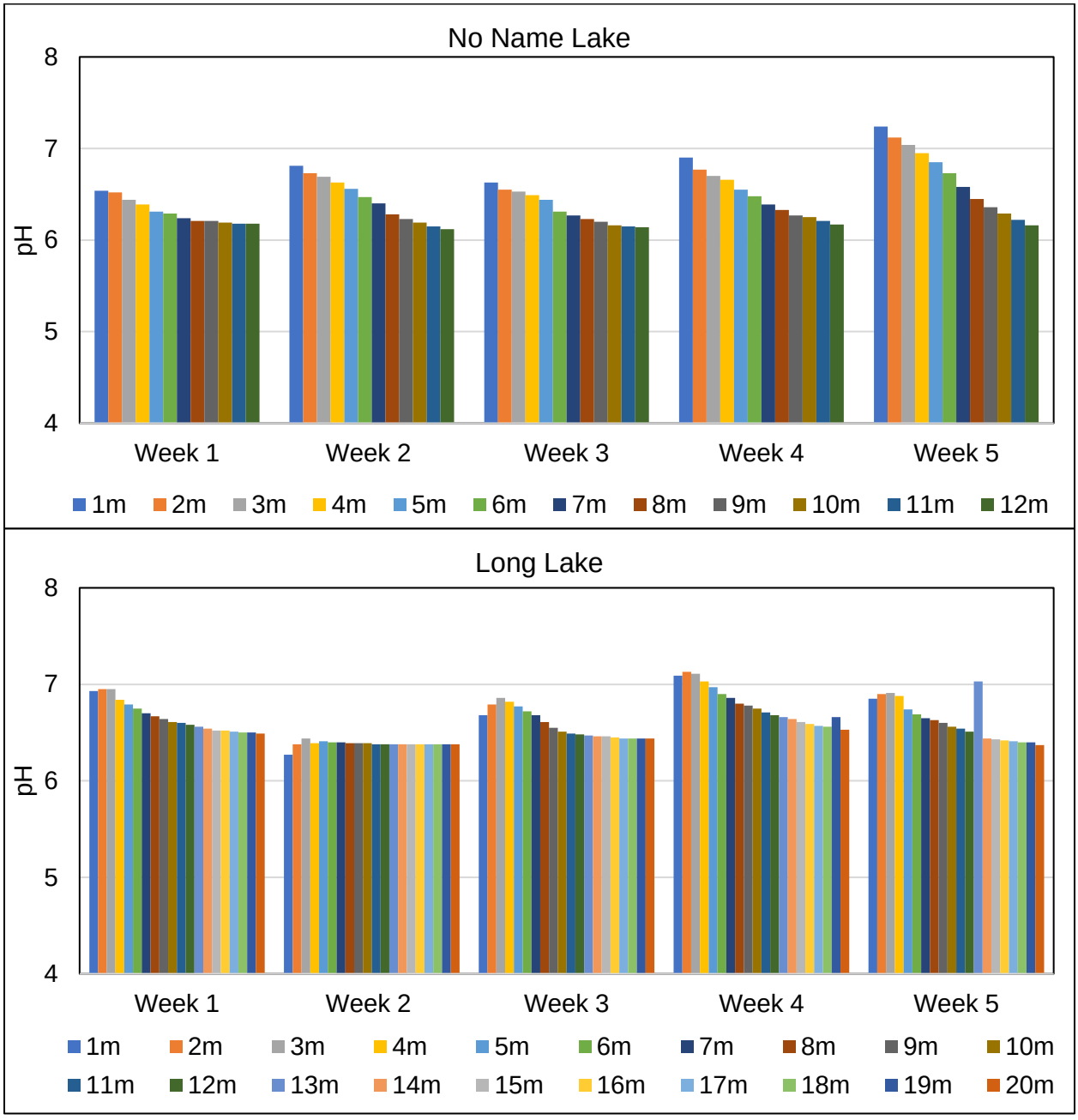

Figure 33: No Name and Long Lake's – pH versus Depth

For No Name Lake average results for pH ranged from 6.15 (1MB) to 6.82 (1m). Average pH fell below the chronic minimum WQG of 6.5 at depths below 5 m, following historical trends. For Long Lake average results for pH ranged from 6.44 (1MB) to 6.85 (3m). Average pH fell just below the chronic minimum WQG at depths of 11 m and 12 m. This trend also follows historical trends as No Name Lake flows into Long Lake. No Name Lake's slightly acid conditions influence Long Lake, Figure 33.

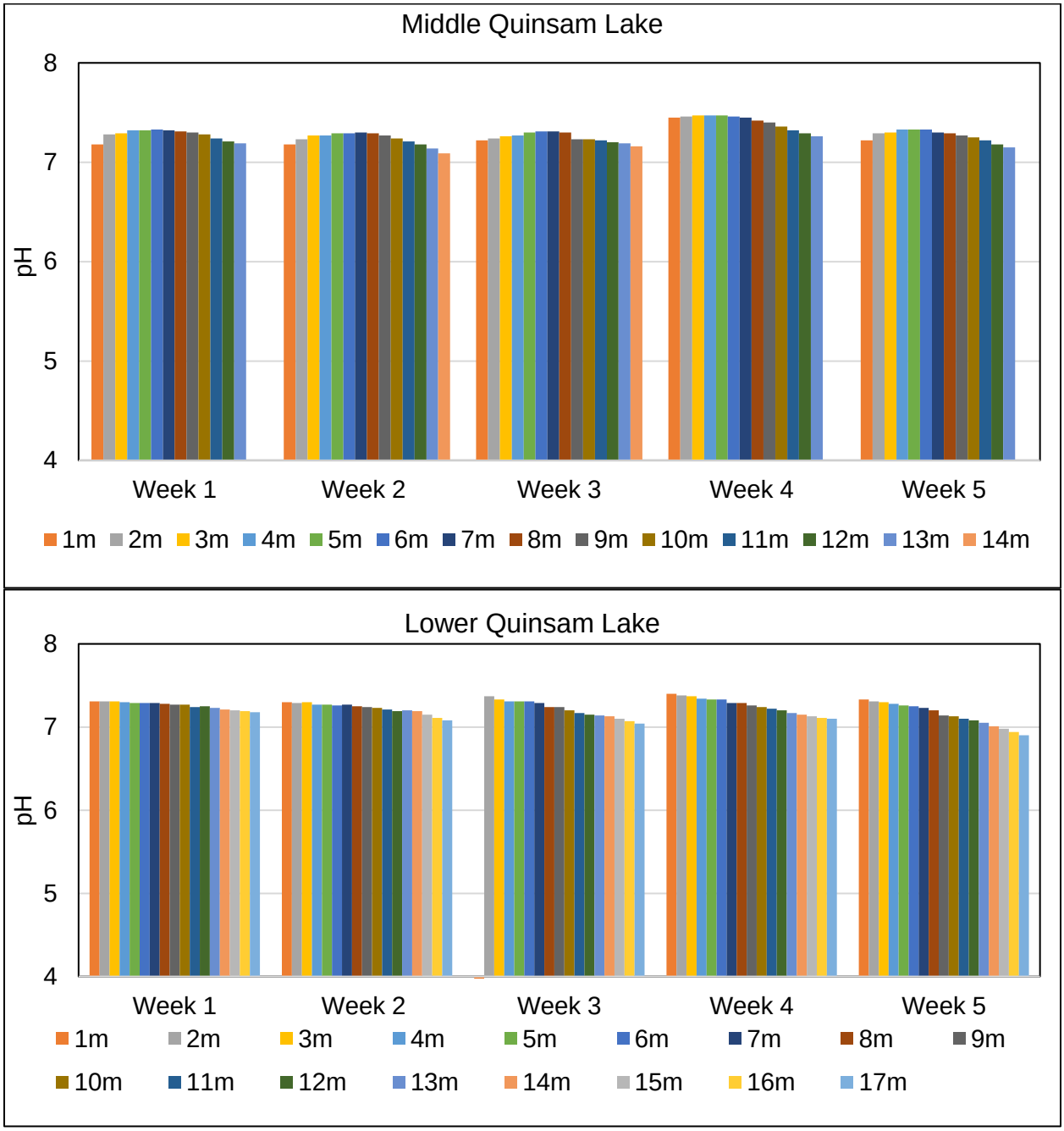

Figure 34: Middle and Lower Quinsam Lake's - pH versus Depth

For Middle Quinsam Lake average results for pH ranged from 7.13 (1MB) to 7.34 (5m). For Lower Quinsam Lake average results for pH ranged from 7.06 (1MB) to 7.34 (1m). Average pH remained above the chronic minimum WQG at all depths in both lakes, Figure 34. Both lakes are neutral to slightly alkaline.

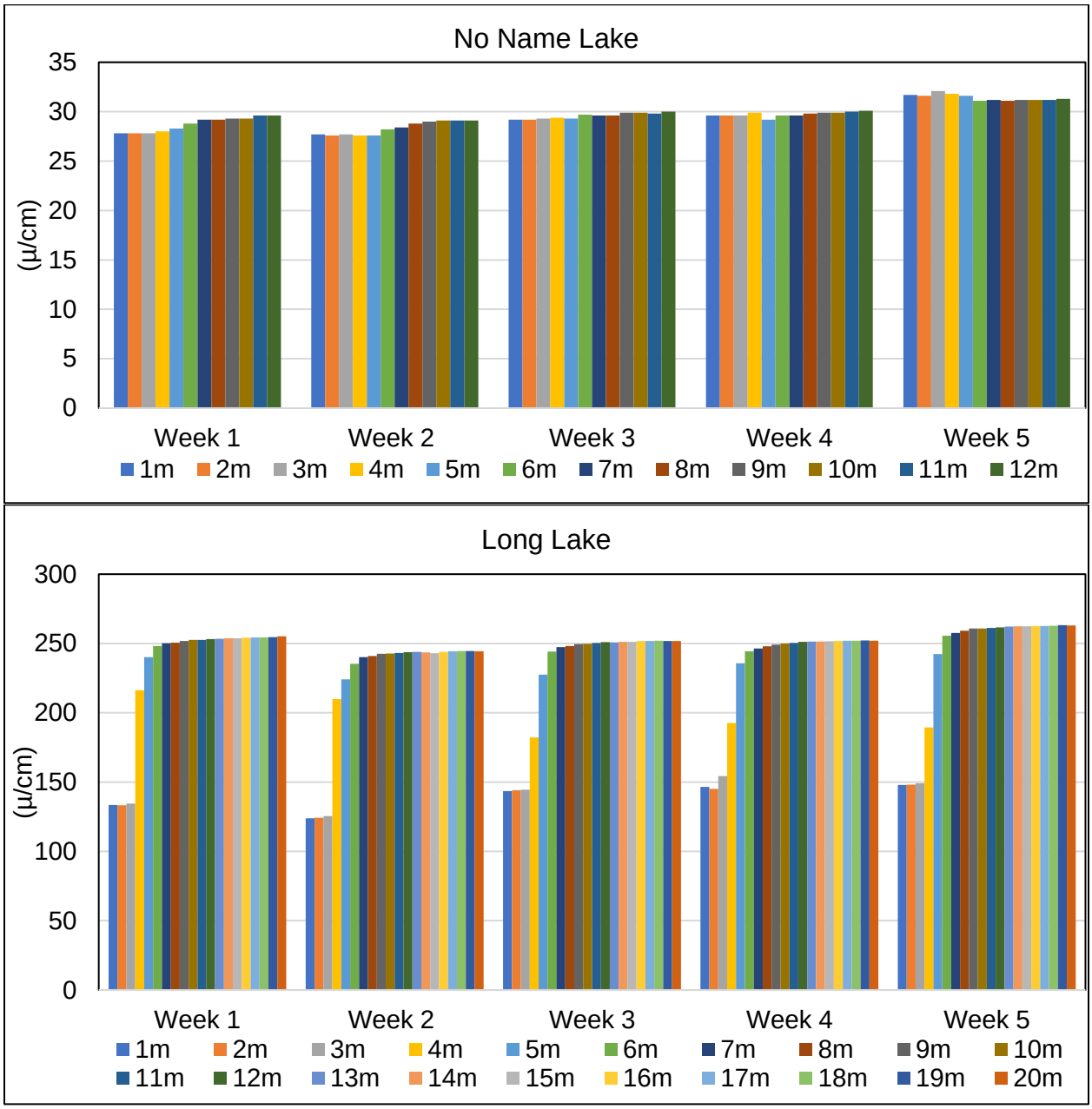

Figure 35: No Name and Long Lake's – Conductivity versus Depth

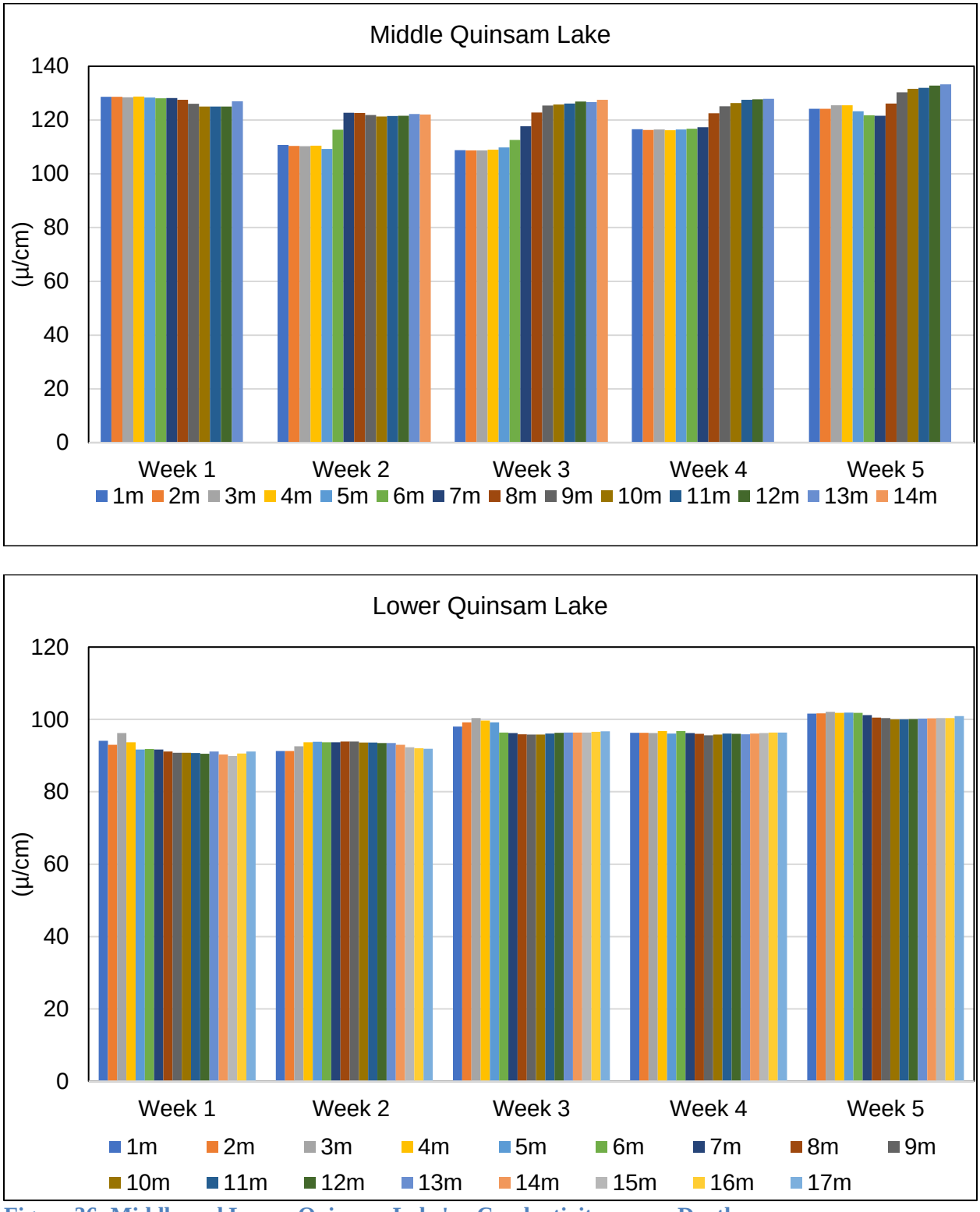

Figure 36: Middle and Lower Quinsam Lake's - Conductivity versus Depth

Average conductivity ranges from 30 µs/cm in No Name Lake to between 139 µs/cm and 253 µs/cm in Long Lake. In Middle Quinsam Lake, conductivity ranges from 117 µs/cm to 127 µs/cm, while in Lower Quinsam Lake, it ranges from 95 µs/cm to 98 µs/cm. No Name Lake has the lowest conductivity as it is situated above any known mine influence. Long Lake has the highest conductivity of all four lakes, with concentrations nearly doubling in depth (greater than 5 meters), indicating a definite mine influence from the 2 and 3 South mines. Middle Quinsam and Lower Quinsam Lakes have similar conductivity ranges (95 µs/cm to 127 µs/cm), with Middle Quinsam displaying lower concentrations at the surface. Refer to Figure 35 and Figure 36, above.

Sulphate concentrations, like conductivity, are used as indicators of mine influence in a freshwater system and vary significantly between No Name Lake and all other downstream lakes monitored. Average sulphate concentrations in No Name Lake are less than 2.5 mg/L throughout the lake. In Long Lake, average concentrations are 41 mg/L, 57 mg/L, 81 mg/L, and 78 mg/L at 1 meter, 4 meters, 9 meters, and 1 meter from the bottom (1MB), respectively. This is due to mine influence on Long Lake from underground workings and discharge from LLE near the outlet. Refer to Figure 37, below.

Average sulphate concentrations in Middle Quinsam Lake ranged from 21 mg/L to 25 mg/L at depths of 1m, 4m, 9m, and 1MB. In contrast, Lower Quinsam Lake exhibited average concentrations of less than 16 mg/L throughout (Figure 38).

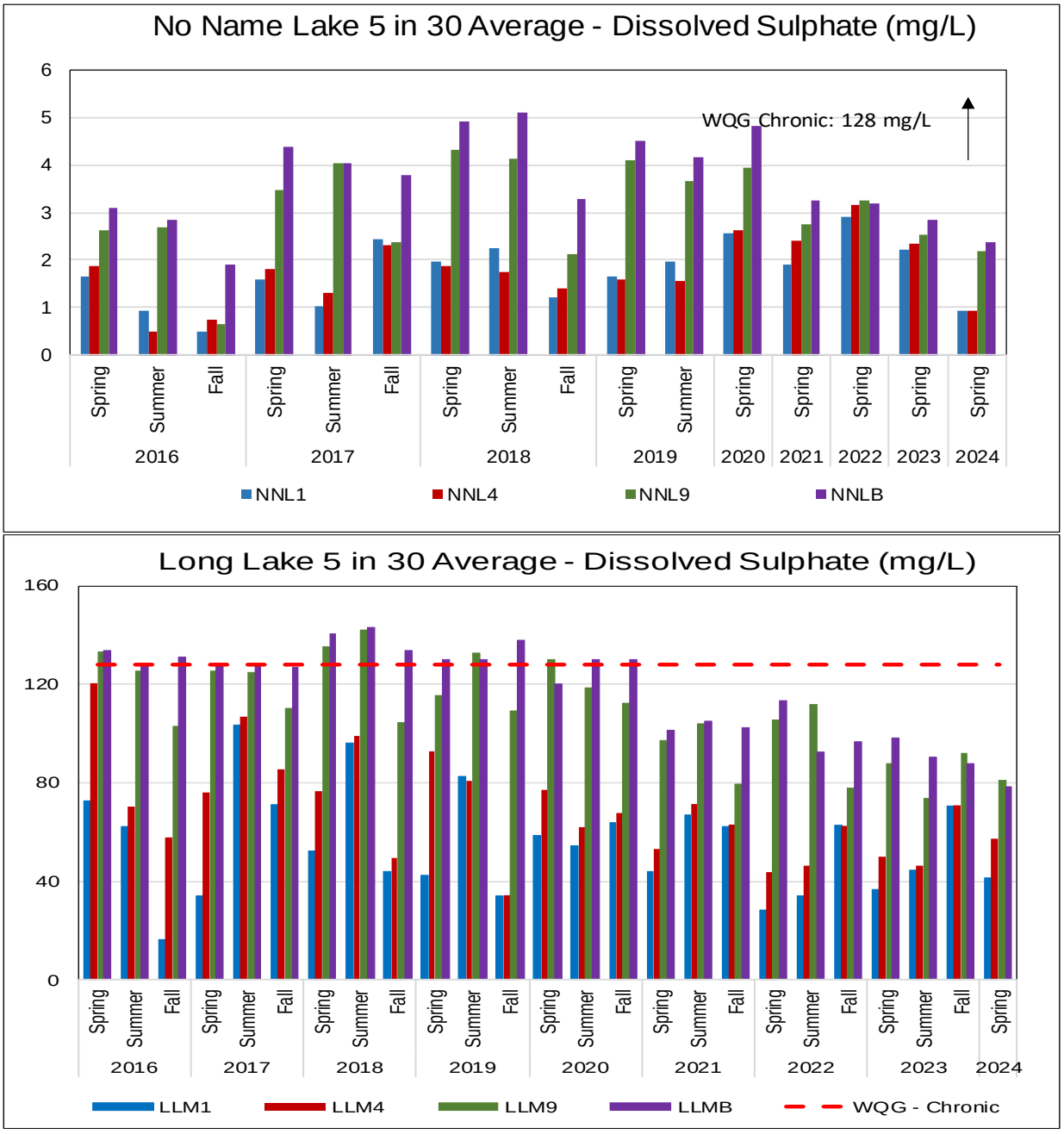

Figure 37: Average Dissolved Sulphate – No Name and Long Lakes

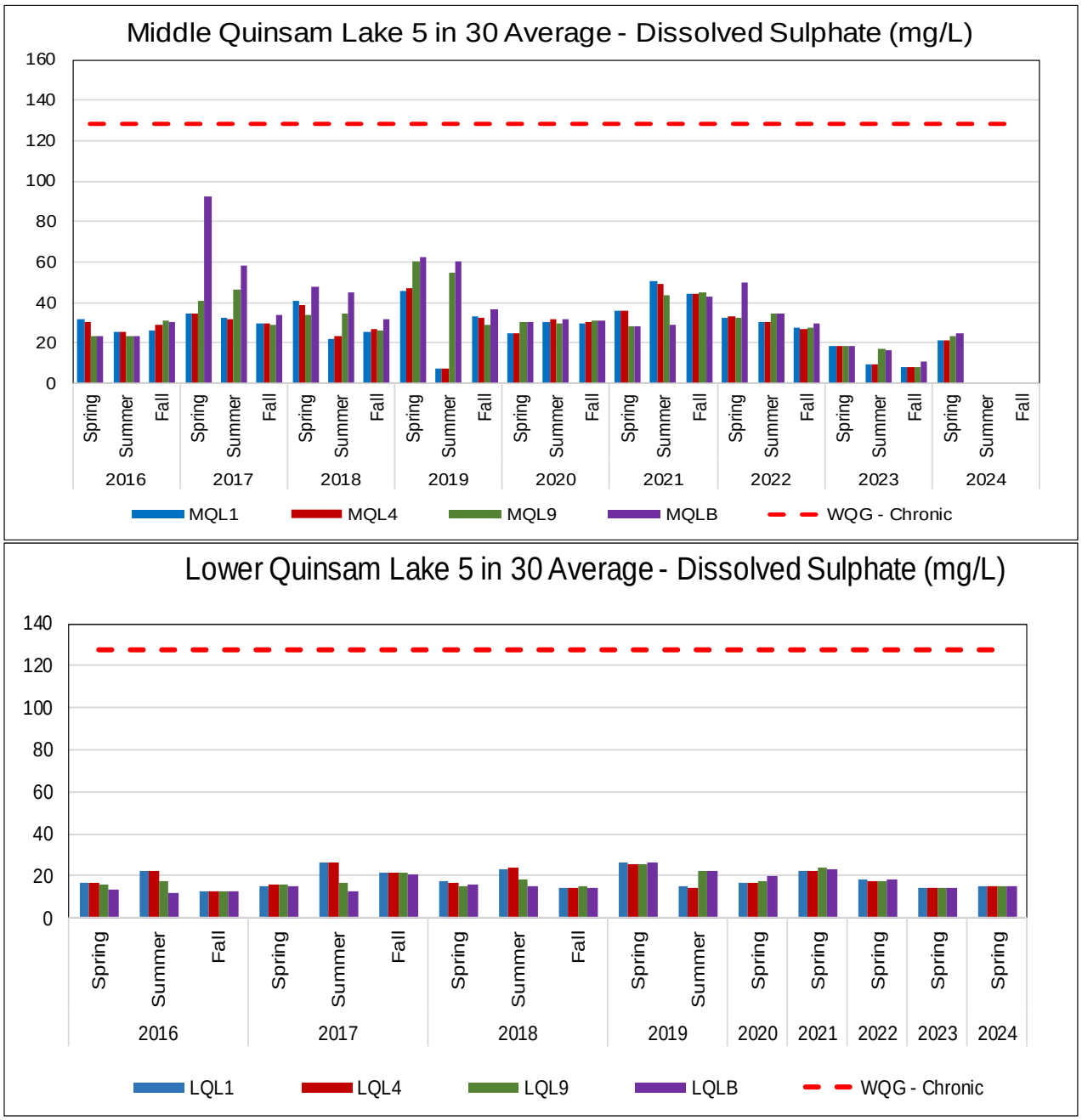

Figure 38: Average Dissolved Sulphate – Middle and Lower Quinsam Lakes

5.3 Streams and Rivers

The five-sample, thirty-day receiving environment program at river and stream sites began on March 28th and concluded on April 22nd. Appendix I, Table 43 presents the water quality results from this program, comparing them to the Water Quality Guidelines (WQG) for the Middle Quinsam Lake Sub-basin and Iron River. For a summary of WQG observations, refer to Appendix 1, Tables 3 and 4.

Spring monitoring stations within the Middle Quinsam Lake sub-basin and Quinsam River include:

- Middle Quinsam Lake Inlet (WA),
- Middle Quinsam Lake Outlet (WB),
- Quinsam River Downstream Site 1 (QRDS1)
- No Name Lake Outlet (NNO),
- Long Lake Outlet (LLO),
- 7-South Quinsam River (7SQR),
- Quinsam River downstream of the confluence with Iron River (IRQR).

All parameters remained below the acute and chronic WQG's in spring on the Quinsam River.

Arsenic remained below the chronic WQG of 0.005 mg/L at all locations in the Quinsam River. Arsenic has been identified as a parameter of concern (POC) and shows incremental increases in average concentrations between upstream and downstream locations on the Quinsam River. The most significant rise in average concentrations, from Middle Quinsam Lake Outlet (WB) to downstream at 7SQR, was 0.000398 mg/L. This increase is likely due to shallow groundwater interacting with arsenic-laden strata, picking up arsenic and transporting it into the river. The highest average arsenic concentration was observed at IRQR (0.000662 mg/L), attributed to contributions from the Iron River. Refer to, Figure 39 below.

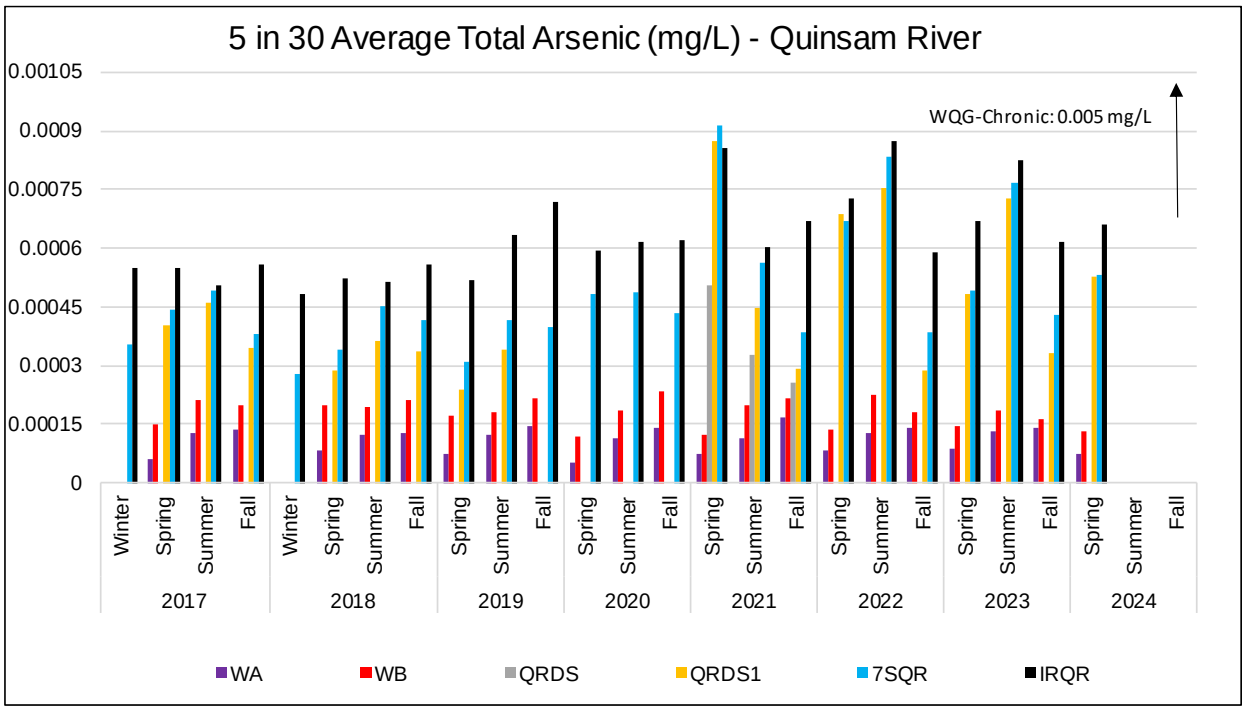

Figure 39: Average Total Arsenic - Quinsam River

Dissolved iron, another POC was also found well below the acute WQG of 0.35 mg/L. The site 7SQR, displayed the highest concentrations in spring ranging from 0.04 mg/L to 0.08 mg/L. Refer to Figure 40, below.

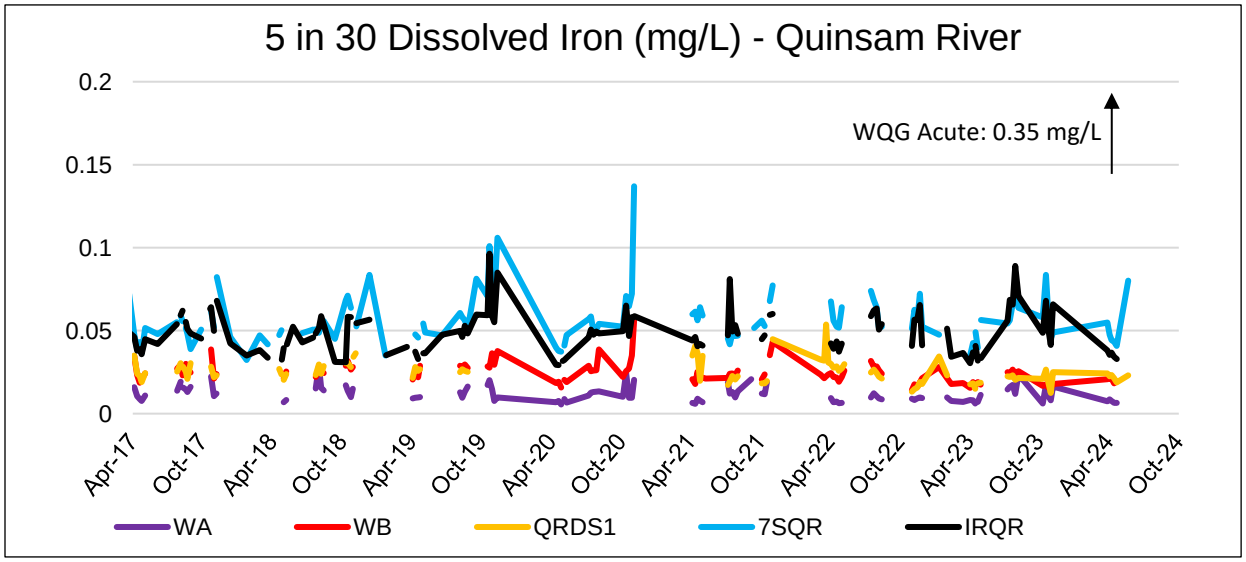

Figure 40: Dissolved Iron - Quinsam River

The primary indication of mine influence on water quality is the increase in dissolved sulphate levels downstream compared to the upstream location (WA). During spring monitoring, dissolved sulphate remained below the chronic WQG of 128 mg/L on the Quinsam River. Average concentrations rose from 0.6 mg/L at WA to 24 mg/L at WB, reflecting the mine's impact from both authorized discharge points, SP1 and SP4. In spring, average sulphate levels were similar across downstream sites (WB, QRDS1, and 7SQR), all below 25 mg/L, while IRQR showed lower concentrations due to dilution from the Iron River. Refer to Figure 41, below.

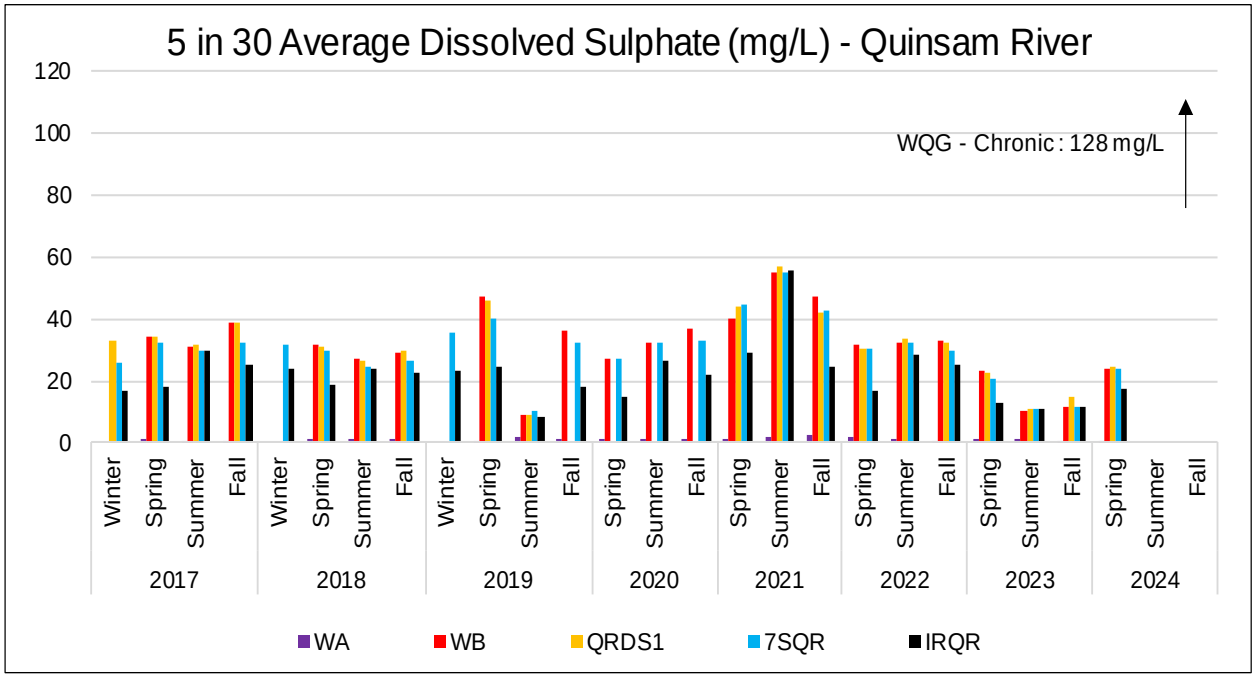

Figure 41: Average Dissolved Sulphate - Quinsam River

5.3.1 Non-Receiving Environment Sites (LLE and Seeps)

Site LLE, a wetland, is the initial dilution zone for the South water management system discharge into Long Lake. For the Long Lake Seeps (LLS and LLSM), dissolved sulphate was elevated at both sites, and total iron was elevated at LLS. Flows at the seeps stopped reaching the lake in early April, with LLS flowing for 7 days and LLSM for 12 days. Sampling occurred only when water flowed through the weir and H-Flume. Low flow rates this quarter were due to increased pumping in the 2-South Mine.

The Long Lake Seeps are not considered receiving environment sites, but WQG's are used for comparison. New potential mine-related seepages on the Quinsam River, referred to as S and S2 (A and B), are compared to WQG's for observation.

Key observations:

- Long Lake Seeps flowed for only one month.
- Elevated dissolved sulphate at both LL seeps (410 mg/L and 610 mg/L).
- Elevated total iron at LLS (1.22 mg/L).
- One out of three LLE results above Acute WQG for dissolved iron (0.35 mg/L).
- Rolling averages for weekly sulphate at LLE were above chronic WQG (128 mg/L), ranging from 150 mg/L to 208 mg/L.
- Peak sulphate concentrations at LLE were observed with decreased flow rates.
- Elevated arsenic concentrations at S and S2 above chronic WQG (0.005 mg/L).
- Elevated total boron at S above chronic WQG (1.2 mg/L).

Refer to Appendix I, Table 3 for individual results.

5.4. Conclusion

Water quality within the Quinsam subbasin is generally meeting Water Quality Guidelines (WQGs) and Water Quality Objectives (WQOs) on most sampling dates in Spring 2024 for the Quinsam River and the four lakes (No Name, Long, Middle Quinsam, and Lower Quinsam Lakes). Dissolved sulphate, a key parameter of interest, remained below the WQG of 128 mg/L at all sampled depths (1m, 4m, 9m, and 1MB) in all lakes. While total aluminum levels were elevated related to lake turnover and spring freshet in No Name Lake, as well as dissolved copper levels in all lakes and upstream of mine influence, exceeding WQGs, no other parameters showed trends above the guidelines.

5.5 Biota Monitoring in the Receiving Environment

Phytoplankton and zooplankton are monitored every year at one station in each of No Name, Long, Middle Quinsam, and Lower Quinsam lakes. Refer to Appendix II for a description of sampling objectives, methods, QA/QC and all historical and present phytoplankton and zooplankton data.

Water sampling in the Quinsam Lakes system is conducted during the growing season to comply with long-term water quality monitoring requirements set by the Env. From 1994 to 2013, the permit mandated sampling at depths of 1 m, 4 m, and 9 m from April to September for Long Lake and Middle Quinsam Lake. No Name Lake was included in June 2012, and Lower Quinsam Lake was added in 2013. In 2014, the permit was revised to limit sampling to surface water (1.0 m depth) three times a year (spring, late summer, and fall overturn). Please refer to Appendix II, Quinsam Lakes Phytoplankton, May 2024, Attachment A contains the long-term dataset.

Quinsam Coal collects the samples and submits them to Stantec Consulting Ltd. for phytoplankton taxonomic analysis as part of ongoing monitoring requirements. Occasionally, an additional sample is taken as a field replicate for quality assurance/quality control. This brief report provides information about samples collected in May 2024 from Long Lake, No Name Lake, Middle Quinsam Lake, and Lower Quinsam Lake. Please refer to Appendix II, Quinsam Lakes Phytoplankton, May 2024, Attachments B and C. These Attachments B and C provide results for May 2024, and Attachment C includes copies of the chain of custody forms for May.

5.5.1 Chlorophyll "a and Phytoplankton Abundance

Chlorophyll "*a"* concentrations provide an indication of overall phytoplankton biomass at any given time and provide a basis for comparing primary production among lakes. Spring results for Chlorophyll "*a*" and phytoplankton abundance are shown in Figure 42 and Figure 43 collected at all four lake's.

Chlorophyll "*a*" results for No Name, Long, Middle and Lower Quinsam Lakes were (0.78 ug/L, 0.6, 0.61, and 1.00 ug/L), respectively. Lower Quinsam Lake displayed peak abundance with No Name Lake second indicating adequate food source for phytoplankton during spring. Spring results were within the historical range.

Figure 43 displays spring historical to present total abundance samples. Abundance is summarized in Table 4, as total and by size fraction (identified at 1000X, 400X, and 100X magnifications, with the smallest size fraction less than 5 μm. Total abundance for May ranged from 990 cells/mL (No Name Lake) to 3,500 cells/mL (Lower Quinsam Lake). Lower Quinsam displayed the second highest abundance since monitoring began with 2020 reporting highest concentrations (4000 cells/mL). Peak abundance and chlorophyll "a" concentrations coincided for Lower Quinsam and not for No Name Lake. These numbers are in the range reported historically.

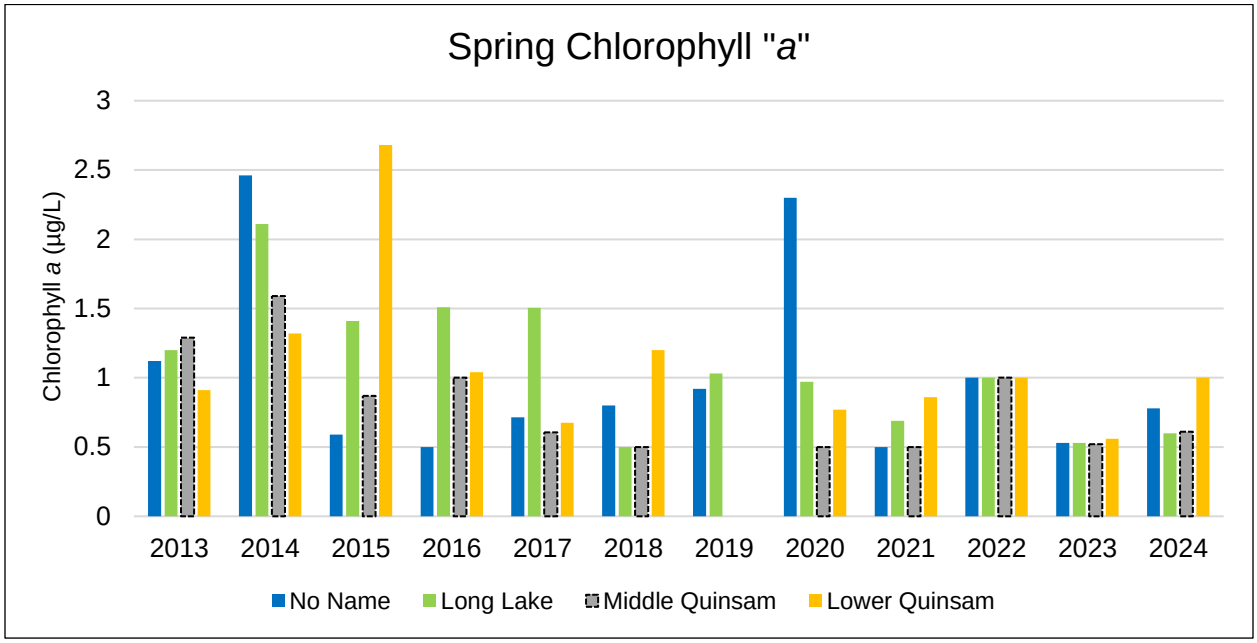

Figure 42: Spring Chlorophyll "a"

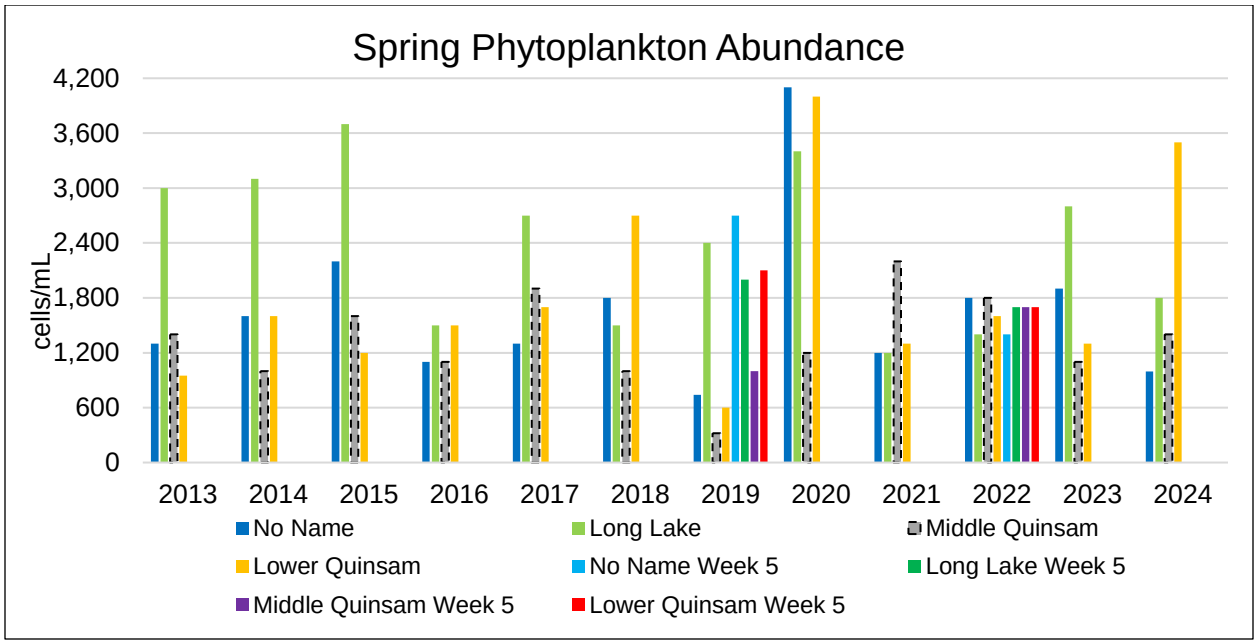

Figure 43: Spring Phytoplankton Abundance

Table 4: Table 1 Phytoplankton Abundance (cells/mL) in the Quinsam Lake System, 2024

Lakes 2024	Date	Abundance (cells/mL) at 1 m depth			
		Total	<5 µm (1000 X)	5 to 25 µm (400 X)	>25 µm (100 X)
Long	May-08	1,800	1,600	130	57
Middle Quinsam		1,400	1300	160	0.5
No Name		990	820	170	0.1
No Name (replicate)		1,000	830	180	0
Lower Quinsam		3,500	3,000	500	29

5.5.2 Species Composition

Phytoplankton species composition data for the May 2024 samples are contained in Appendix II, Attachment B. The most abundant phytoplankton in the four lakes were the very small (less than or equal to 5 µm) chrysoflagellates (*Ochromonas* spp. and *Chromulina* spp.). Although these ultra-nanoplankton species were very abundant numerically, they usually contribute little to algal biomass.

Among the larger algae, the most abundant species were as follows:

- Long Lake – chrysophytes *Ochromonas* spp. and *Dinobryon cylindricum* (predominant)
- Middle Quinsam Lake – *Ochromonas* spp. (predominant)
- No Name Lake – chrysophytes *Ochromonas* spp. and *Mallomonas spp.*, green alga *Oocystis* sp., and cryptophytes *Rhodomonas minuta* and *Cryptomonas* spp. (common, no clear dominant taxa).
- Lower Quinsam Lake – Ochromonas spp. (predominant), *Dinobryon sociale*, *Rhodomonas minuta*, and *Cryptomonas* spp. (common).

The May 2024 samples were similar in composition and abundance to samples collected during the spring in recent years.

5.6 Zooplankton

Zooplankton form the second trophic level in the water column of lakes (secondary producers), grazing on phytoplankton, consuming organic matter, and providing a food source for juvenile fish (Wetzel 2001). Abundance and composition of the zooplankton community vary among lakes due to variation in water chemistry, lake characteristics, and grazing pressures from fish (Wetzel 2001).

According to PE:7008, zooplankton are monitored in the Quinsam mine receiving environment three times per year at one station in Middle Quinsam and Long Lakes. Lower Quinsam and No Name Lakes are monitored once a year (spring) as of Permit amendment in November 2019. Since

2014, zooplankton samples have been collected once in the spring, summer, and fall during the 5 in 30 water quality sampling periods.

Samples were collected using a Wisconsin Plankton Sampler (63 µm net) in a 10 m vertical tow, with one sample collected per lake. Samples were preserved with Formalin sent to Biologica Environmental Services, Ltd in Victoria for analysis. Refer to Appendix II, Freshwater Zooplankton Enumeration and Identification Methods Report and Quinsam Coal Corporation for taxonomic analyses. Organisms were counted and identified to the lowest practical level.

5.6.1 RESULTS

Zooplankton species composition data for the May 2024 organisms per sample are displayed in the below Figures 44 through and available in Appendix II.

Abundance is summarized in Table 5, as total and individual organisms. Total abundance for May ranged from 3713 organisms / sample, (No Name Lake) to 8,214 organisms / sample (Lower Quinsam Lake). Lower Quinsam displayed peak abundance in May 2024 reporting highest concentrations. All lakes displayed an increase in total abundance since 2014.

Among the lakes the most abundant species (organisms / sample) were as follows:

- Long Lake – Rotifera (1750 organisms / sample)
- Middle Quinsam Lake – Copepod Nauplii (2900 organisms / sample)
- No Name Lake – Rotifera (1700 organisms / sample) and Replicate (1550 organisms/sample)
- Lower Quinsam Lake – Rotifera (4600 organisms / sample)

Table 5: Zooplankton Abundance (organisms / sample)

Lakes 2024	Month	Total Abundance	Abundance (organisms/sample)				
			Cyclopoida	Calanoida	Cladocera	Rotifera	Copepod Nauplii
No Name	May	3713	163	169	1075	1700	1075
	May Rep.	3329	163	133	667	1550	817
Long	May	3511	339	132	339	1750	950
Middle Quinsam	May	3680	82	42	256	400	2900
Lower Quinsam	May	8214	2107	14	143	4600	1350

Refer to Figure 44: Spring Zooplankton – Species Composition and historical to present graphs for all four lakes, Figure 45: No Name and Long Lakes - Zooplankton Species Composition –

Spring and Figure 46: Middle and Lower Quinsam Lakes - Zooplankton Species Composition – Spring.

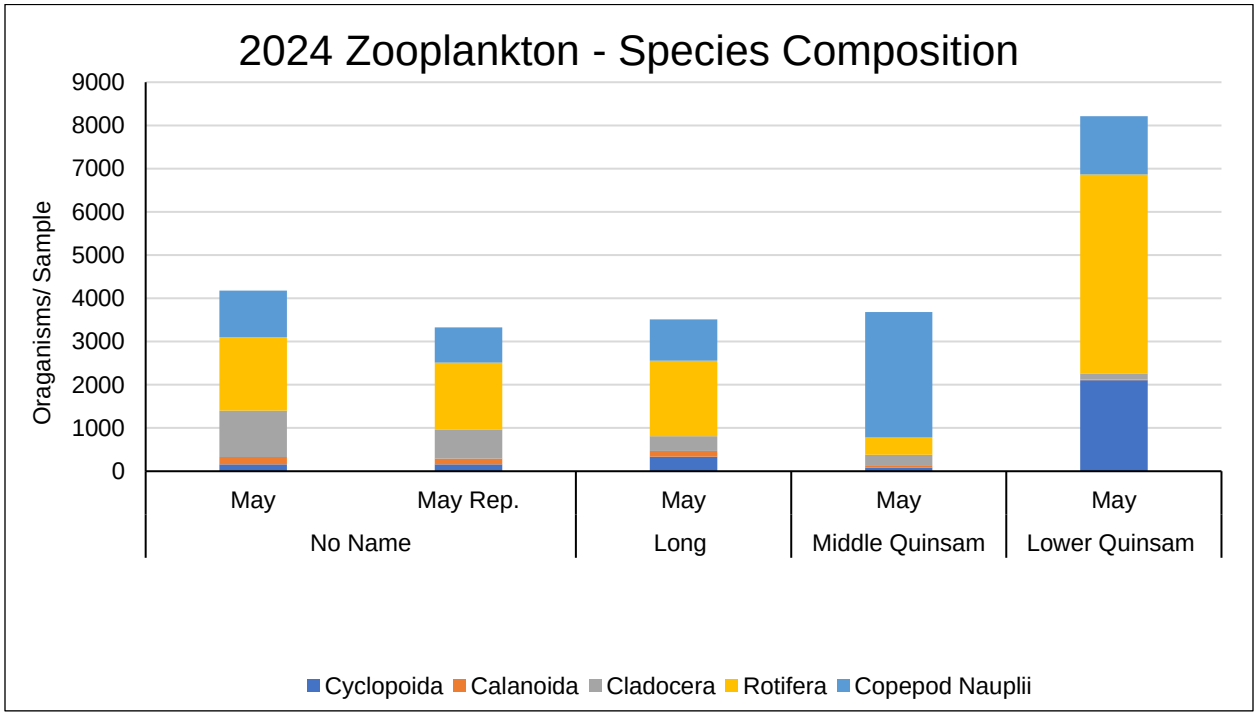

Figure 44: Spring Zooplankton – Species Composition

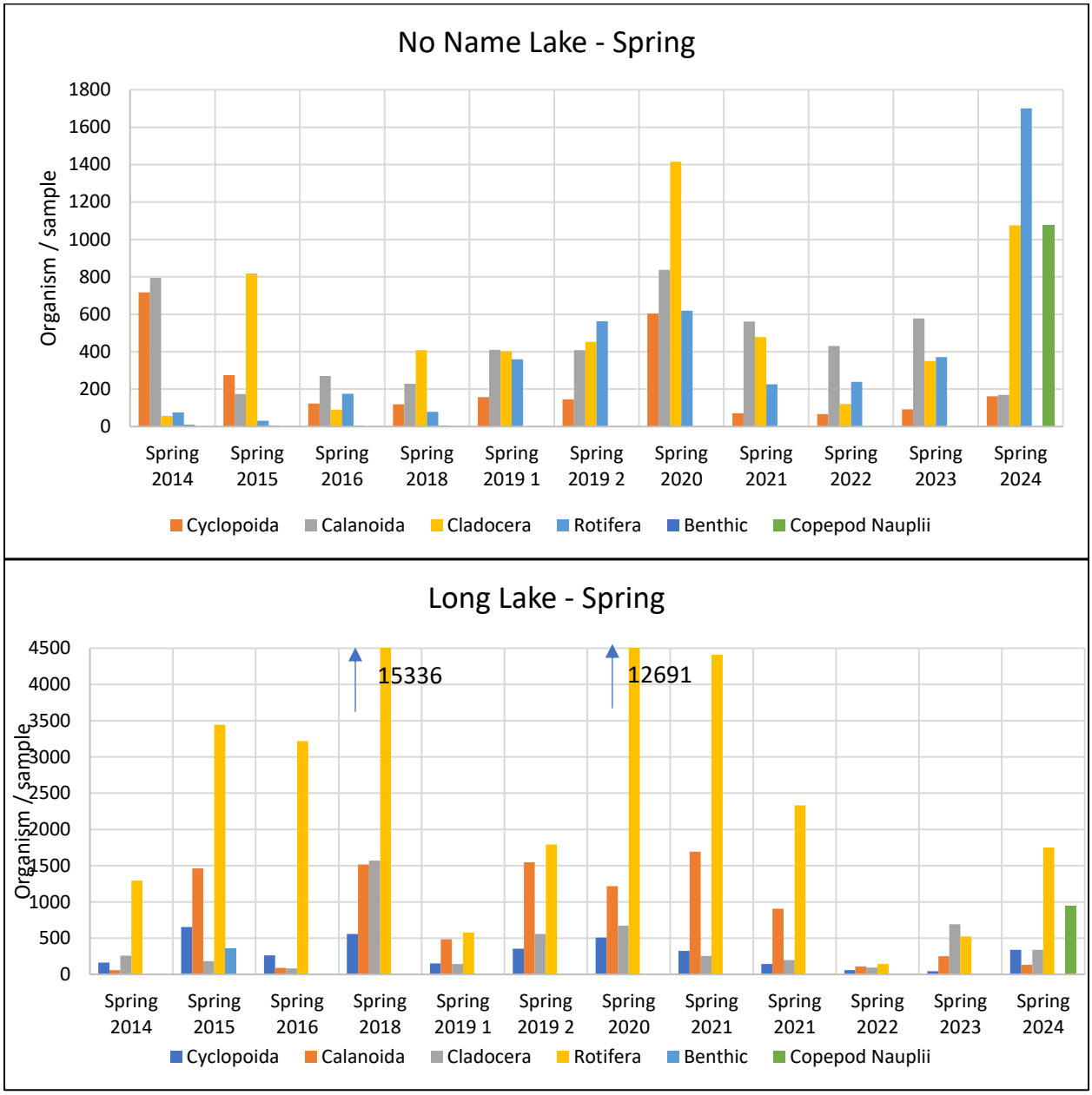

Figure 45: No Name and Long Lakes - Zooplankton Species Composition – Spring

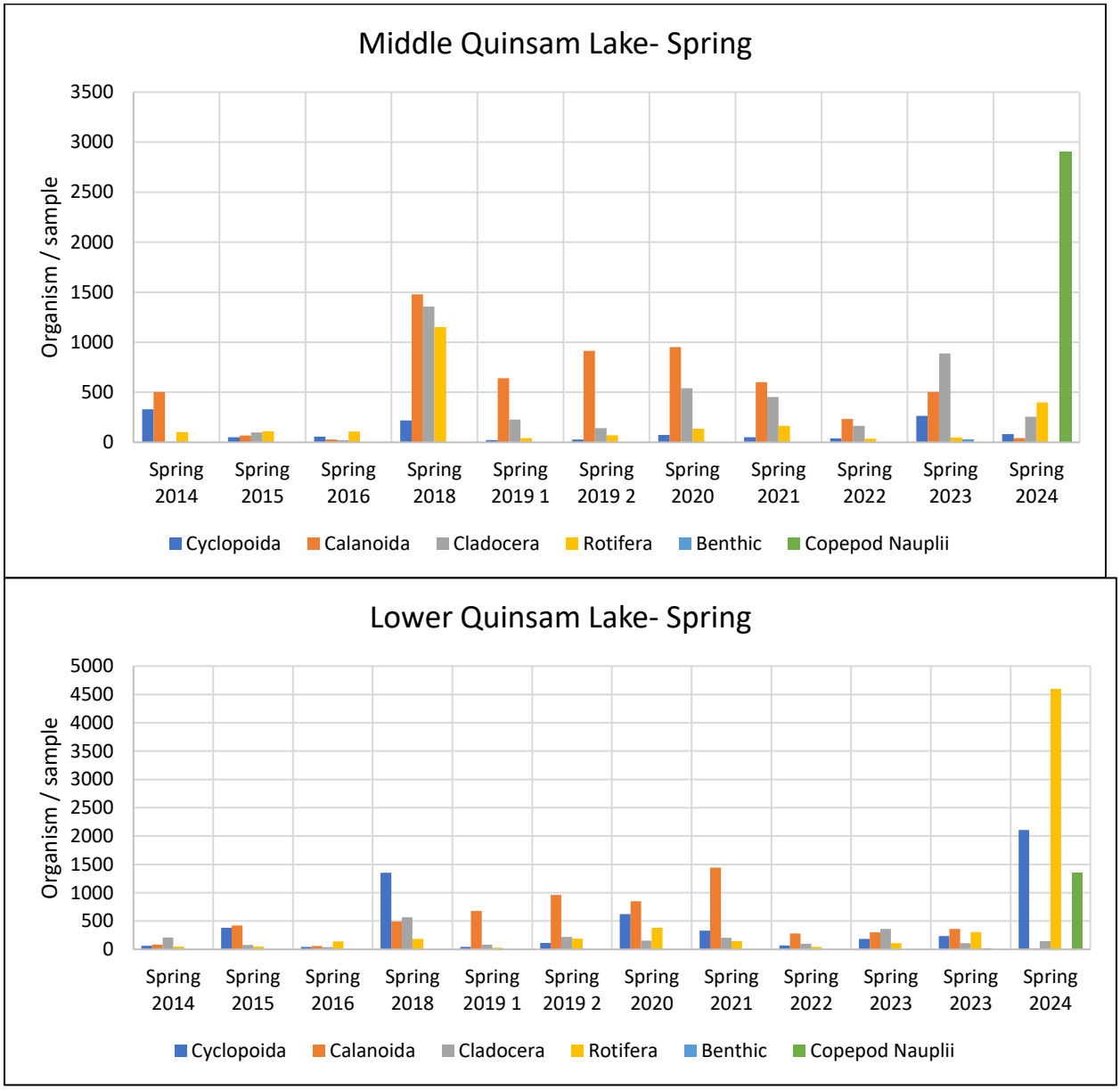

Figure 46: Middle and Lower Quinsam Lakes - Zooplankton Species Composition – Spring

5.7 CONCLUSION

Variations in total abundance when comparing lake phytoplankton and zooplankton abundance may be related to the month sampled and phytoplankton blooms and zooplankton life stages. Differences in taxonomic composition are related to seasonal conditions, including food supply (phytoplankton and organic matter) and grazing pressures from fish. The larger Copepods and

Cladocera's are preferred food sources for fish. All four lakes are known to be fish bearing (e.g., salmon and trout species), but there is not enough information about fish populations to estimate grazing pressures on zooplankton. Both Long, Middle and Lower Quinsam Lakes are stocked in the spring by the Quinsam Fish Hatchery. Historical to present graphs (Figure 45 and Figure 46) display the species composition for Lake's.

6.0 In-situ Mine Water and Ex-situ Groundwater

Groundwater wells are classified as either **in-situ** or **ex-situ**:

- **In-situ**: Located within the mine workings, representing water accumulated in the mining void. If groundwater well samples are unavailable, underground sump samples are used.

- **Ex-situ**: Located outside the mine workings, reflecting formation groundwater and seepage from flooded mine voids. This includes wells up-gradient of the workings and baseline groundwater wells.

Both types of wells are compared to the British Columbia Contaminated Site Regulation (CSR) standards for freshwater Aquatic Life (AW), assuming a 1:10 dilution for groundwater discharged to freshwater systems.

Monitoring of groundwater wells, underground sumps, and dewatering wells in various mine areas revealed certain parameters exceeding CSR-AW standards, including arsenic (mainly in ex-situ groundwater), chloride, sulphate, and sulphide as H2S. Selenium was also observed in deep ex-situ groundwater.

Key findings:

- Elevated arsenic in ex-situ groundwater at several locations throughout the site.

- Elevated arsenic, cadmium, and sulphate in in-situ flooded mine voids and underground sumps.

- Elevated hydrogen sulphide in both in-situ and ex-situ groundwater.

Potential seepage areas near the Quinsam River are monitored for water quality, with arsenic, chloride, and sulphate closely correlated with shallow groundwater at QU11-09 S and QU11-05 S.

For detailed well descriptions and results, refer to Appendix 1, Tables 32-34 and Figure 47.

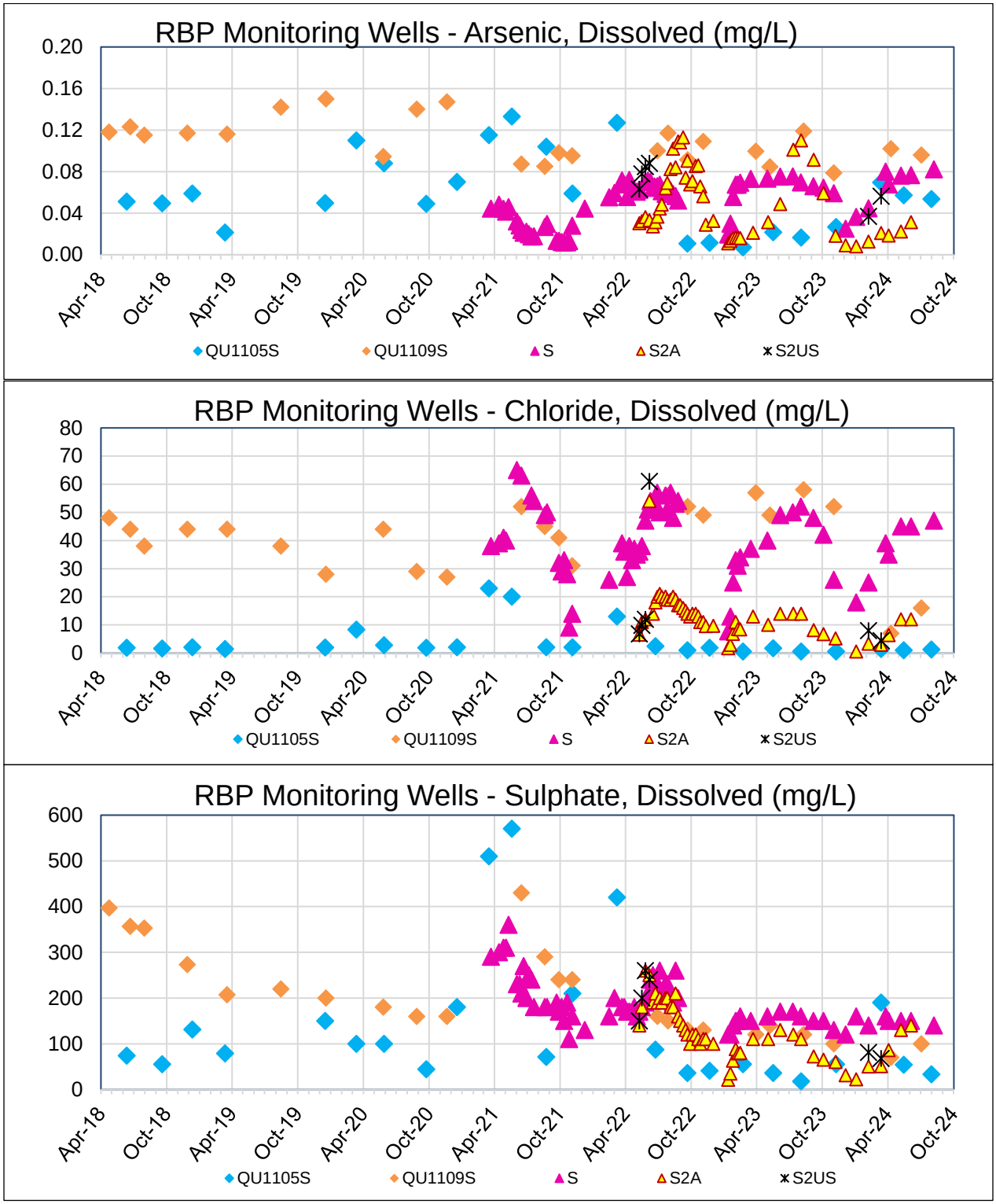

Figure 47: Shallow Groundwater (RBP) and Seeps – Arsenic, Chloride and Sulphate

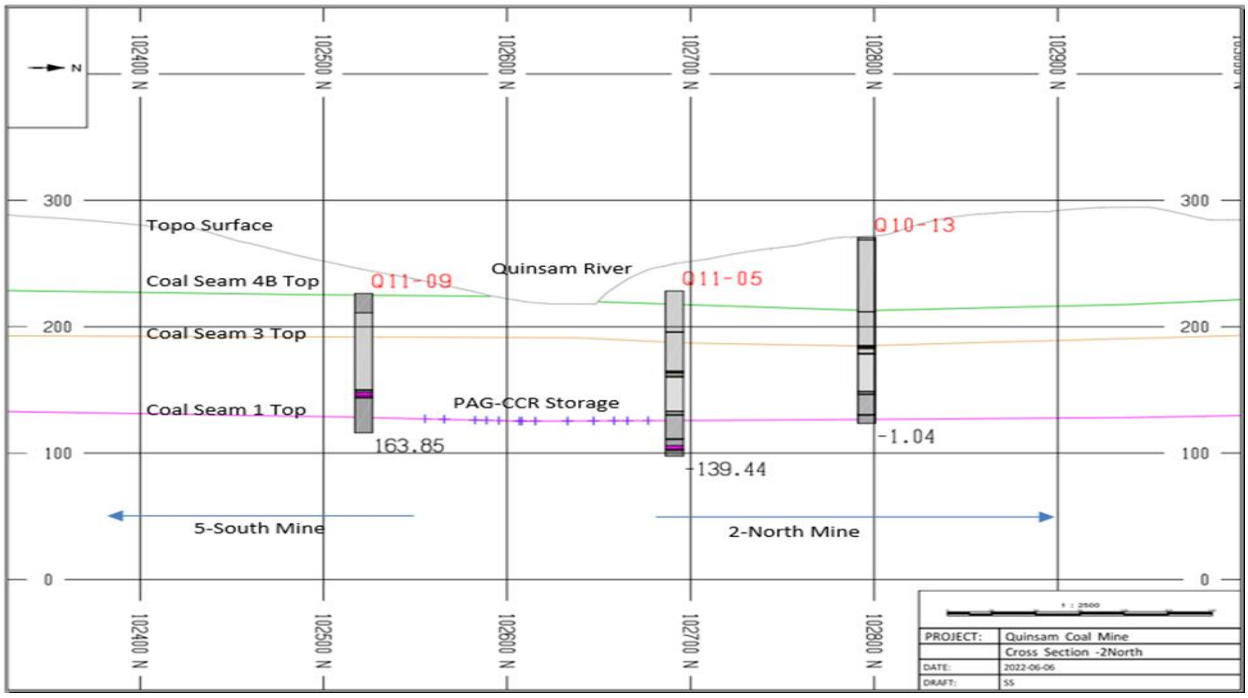

Figure 48: Cross Section in North-South Direction Near Seepage Areas by QU11-09 and QU11-05

Figure 48: Cross Section in North-South Direction Near Seepage Areas by QU11-09 and QU11-05, above displays a cross section in North-South direction near the seepage areas S at QU11-09 and S2 at QU11-05. The numbers at the bottom of each borehole are the distance offset from the cross-section line. Positive (negative) signs indicate borehole locations north (south) of the cross-section line. The PAG-CCR storage area (blue cross) is projected on the coal seam 1 top surface, where the coal was mined at 2-North. Non-arrowed polylines represent different surfaces.

The relationship between flow rates at the seeps and water elevations in the 2-North flooded mine voids continues to be evaluated. Work is underway for the Minesite Water Balance and Source Terms Update, with results expected in Fall 2024. These efforts aim to enhance our understanding and management of groundwater quality, to ensure environmental safety and compliance with regulatory standards.

7.0 Passive Treatment System (PTS)

The PTS was operating throughout the quarter. The 2-South well pump was dewatering the 2-South flooded mine void at an average flow rate of 7.77 L/s. Water was entering the PTS at the BCR at an average flow rate of 4.5 L/s with 3.27 L/s of untreated mine water flowing into the 2-South pit. The objective being to pump down the mine pool faster to stop the seep discharge for a longer period. The mine pool water level was measured at 11.2 m above the pump in April and decreased to 9.2 m at the end of June. Seepage stops from both seeps at a mine water elevation of

around 301 to 303 Masl and starts at 304 Masl measured at Groundwater well, MW004. Groundwater levels in MW004 also relate to the seep flow as displayed in Figure 49, below.

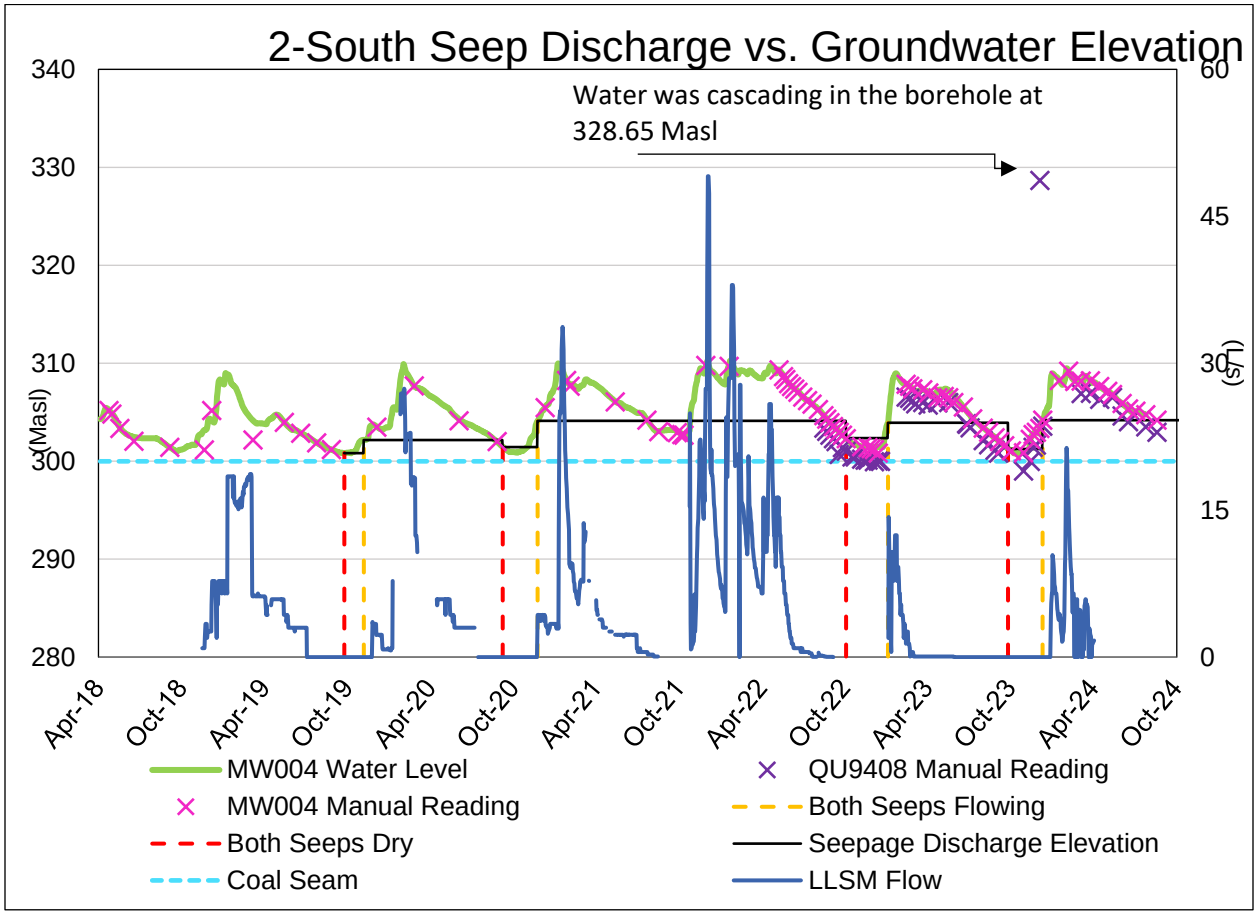

Figure 49: Water Level Versus Long Lake Seep Flow

Average concentrations of dissolved sulphate have been entering the system from the 2-South mine pool measured at INF resulting in 631 mg/L, average sulphate at the BCR was 572 mg/L and leaving the system at SPCEFF resulting in 492 mg/L. This has led to a reduction in average sulphate of 139 mg/L. The station 2-South Inflow (2SI), receives discharge from the PTS, had an average sulphate concentration of 480 mg/L and SPD averaged 356 mg/L, during Q1. Overall, a quarterly average sulphate reduction of 275 mg/L was attained between INF and SPD. The original reduction goal for the PTS, was to reduce sulphate concentrations to 300 mg/L. This goal was close to being achieved this quarter, refer to Figure 50: Average Sulphate and Average Sulphate Reduction, below.

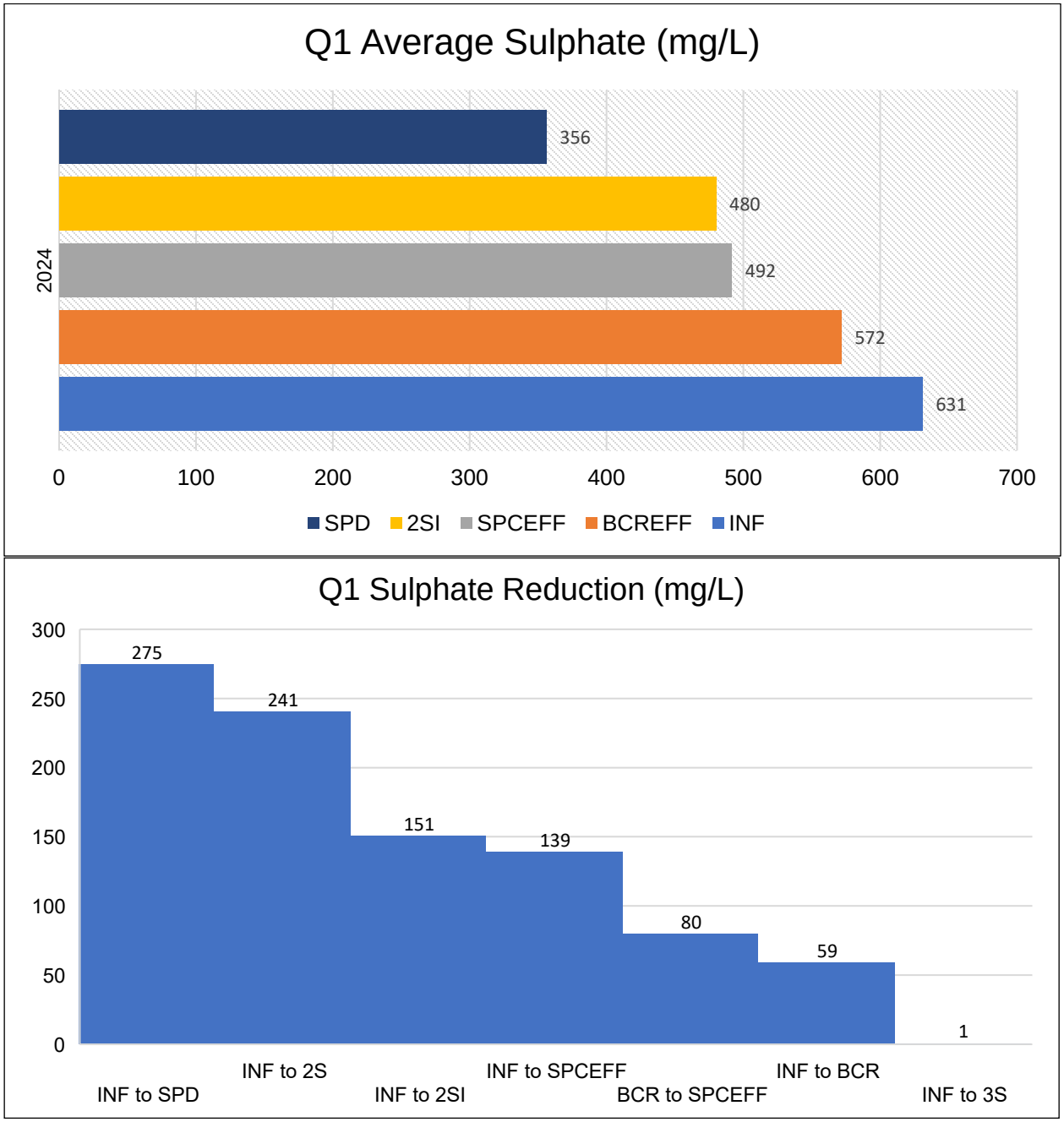

Figure 50: Average Sulphate and Average Sulphate Reduction

The PTS is effective at maintaining water cover over the PAG-CCR in the 2-South pit and reducing discharge at the Seep into Long Lake during low flow periods. This is accomplished by decreasing the elevation of the mine pool below the elevation of the seeps. The period of "no flow" at the Middle Seep into Long Lake (LLSM) has been observed to be extended by pumping down the mine pool. In Q1 both seeps discharge flow paths were so low in early April the water stopped

reaching the lake and eventually ceased flowing. This is the first time in 16 years that this has occurred, with water elevations so low in the mine void during April. The larger seep (LLSM) only flowed from December 29th, 2023, until April 2, 2024, when it was flowing through the H-Flume.

Further monitoring of the PTS will continue and includes the 2-South and 3-South systems and groundwater wells QU11-11 (INF) and MW004. Relationships between mine pool water elevations and seep flow rates continue to be developed with observations noted every quarter.

8.0 Quality Assurance Quality Control

All replicate sampling was performed in compliance with the *British Columbia Field Sampling Manual for Continuous Monitoring and the Collection of Air, Air Emission, Water, Wastewater, Soil, Sediment, and Biological Samples, 2013 Edition*.

As per these guidelines and in accordance with the Quinsam Coal Quality Assurance/Quality Control (QA/QC) program, one field replicate sample was collected per sampling event. Relative Percent Difference, RPD values were calculated in accordance with the B.C. field sampling manual. Refer to Appendix 1, Tables 44 to 46.

9.0 Conclusion

Quinsam Coal is dedicated to reducing the environmental impacts as a result of mining on the receiving environment. Overall, there were no permit limit exceedances and few parameters outside the provincial Water Quality Guidelines in the receiving environment this quarter. This exemplifies that the environmental management practices employed by the mine are effective at reducing impacts to the surrounding environment. In closing, we trust the information presented in this report satisfies the conditions under Effluent Permit PE-7008. Please contact the Environmental Department if you have any questions or comments.

Appendix 1 - Tables

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Appendix 1 - Tables

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Table 1 Description of Effluent, In-Mine Releases and Receiving Environment Monitoring Sites 1 Page(s)

Description of Effluent, In-Mine Releases & Receiving Environment Monitoring Sites			
EMS ID #	**Monitoring Sites**	**Abbreviation (Station Code)**	***Type of Water (MW, FW or GW)**
North Coal Mining Operation			
E207409	Settling Pond #4 Decant	WD	**Discharge (MW)**
E207411	Culvert, at Middle Quinsam Lake Road	WC	MW & FW
E283433	2-North Portal Sump (Adit Sump)	2NPS	MW
E207412	2-North Pit Sump CCR Cover	WP	PAG-CCR Water Cover - MW
South Coal Mine			
E218582	Settling Pond #1 Decant	SPD	**Discharge (MW)**
E217014	Culvert, Downstream End at Access Road	SPC	MW & FW
E217015	South Pit Main Sump Water	3S	PAG-CCR Water Cover (MW & FW)
E292127	2-South Pit In Pit Water Cover (2-South Standpipe)	2S	PAG-CCR Water Cover (MW & FW)
7-South Mining Operation			
E292069	7-South Surface Decant	7SSD	**Discharge (SW)**
E292110	7-South Adit Sump	7SPS	MW
Seep Monitoring Sites			
E292131	Long Lake Seeps	LLS & LLSM	GW / MW
	Culvert that collects groundwater and Coal Main logging road water entering MQL (PDSR)	PDSR	GW / SW
	Groundwater surfacing with potential mine influence near QU1109	S	GW / SW
	Artesian spring with potential mine influence near QU1105	S2A	GW / SW
	Groundwater surfacing with potential mine influence near QU1105	S2US and S2B	GW / SW
Receiving Environment Monitoring Sites - Near Initial Zone of Dilution (NIDZ)			
Near Initial Dilution Zone (NIDZ) Monitoring Sites			
E292130	Long Lake Entrance (South end water entering Long Lake near the outlet)	LLE	NIDZ
E292109	Road Crossing Bridge on Stream 1 above the Lower Wetland (Downstream of 7SSD).The site name is Stream 1, 7S.	7S	NIDZ
Receiving Water (Rivers & Lakes Monitoring Sites) 5 in 30 Monitoring Locations			
North Coal Mining Operation			
E0126402	Quinsam River at Argonaut Bridge	WA	FW
E206618	Middle Quinsam Lake Centre	MQL (1, 4, 9 & 1m from Bottom)	FW
E0900504	Outflow from Middle Quinsam Lake	WB	FW
South Coal Mine			
E217018	No Name Lake	NNL (1, 4, 9 & 1m from Bottom)	FW
E217017	No Name Lake Outlet	NNO	FW
E206619	Long Lake at Centre	LLM (1, 4, 9 & 1m from Bottom)	FW
E219412	Long Lake Outlet	LLO	FW
7-South Mining Operation (Areas 1 to 4)			
E286930	Quinsam River Upstream of 7-South Mining Operation	QRDS1	FW
E292113	Quinsam River Downstream of 7-South Mining Operation	7SQR	FW
E292118	Lower Quinsam Lake Centre	LQL (1, 4, 9 & 1m from Bottom)	FW
7-South Area 5 Mining Operation			
E297231	Iron River upstream of 7SA5 and 242 influence	IR6	FW
E297232	Iron River downstream of 7SA5 and 242 inputs	IR8	FW
E299256	Quinsam River downstream of confluence with Iron River	IRQR	FW
E292118	Lower Quinsam Lake Centre	LQL (1, 4, 9 & 1m from Bottom)	FW
Long Lake Seep Passive Treatment System			
N/A	Groundwater well (2-South Mine Pool) influent to the Passive Treatment System (PTS)	QU11-11 (INF-EFF)	MW
N/A	Biochemical Reactor	BCR-EFF	MW
N/A	Sulphide Polishing Cell	SPC-EFF	MW
N/A	2-South Inflow (From Passive Treatment System)	2SI	MW
N/A	2-South Culvert into 3-South Pit (Seepage under liner and overflow from 2S-pit)	2SC	MW
*** MW= Mine Water, FW= Freshwater, GW =Groundwater NIDZ = Near Initial Dilution Zone**			

Appendix 1 - Tables

Table 2 Summary of Permit Limit Exceedances, Permit Non-Compliances and Unauthorised Discharges 1 Page(s)

Summary of Permit Limit Exceedances, Permit Non-Compliances and Unauthorised Discharges `					
EMS ID & Site Name	Non-Compliance (PNC)	Result (mg/L)	Date	Non-Compliance Reason	Number of events or period for PNC, P or spill event.
Section 3.10 - Bypasses - Effluent that is discharge without being processed through the authorised works are considered bypasses of authorised works (S, S2A, S2B, LLSM and LLS).	Bypass of Authorized Works	PNC	Q1	See below	See below
E292131 - Long Lake Seep (LLSM)	Bypass of Authorized Works	PNC	April 1 to 12	Mine water bypassing the authorised works (SP1) flowing into Long lake. Water was not reaching the lake or flowing through the H-Flume.	Q1 (12 days)
E292131 - Long Lake Seep (LLS)	Bypass of Authorized Works	PNC	April 1 to 7	Mine water bypassing the authorised works (SP1) flowing into Long lake. Extremely low flow. Water was not reaching the lake during the 2nd week of April.	Q1 (7 days)
Seeps (S and S2A)	Bypass of Authorized Works	PNC	Q1	Potential mine influenced groundwater water, bypassing the authorised works (SP4) flowing into Quinsam River.	Q1 (91 Days)
Seep - S2B	Bypass of Authorized Works	PNC	April 1-15	Potential mine influenced groundwater water bypassing the authorised works (SP4) flowing into Quinsam River.	Q1 (15 Days) estimated
SP1 -E218582	Missing continuous flow data (average and maximum)	PNC	April 1, 3, 5 - 7, 11-13	Equipment malfunction. Flow meter was not recording data due to terminal strip malfunction.	7 days
	Incorrect data recorded		April 11, 14, 17, 18, 23, 24 - 28 and May 30	Equipment malfunction. Inaccurate data recorded. Terminal strip malfunction. Data will be removed from data set.	11 days
	Data augmented with manual readings.		April 8, 16, 22 and 29	Manual readings were recorded.	4 days
SP4 - E207409	Data augmented with manual readings.	PNC	May 21, 27 and 29	Manual readings were recorded.	3 days
	Missing continuous flow data (average and maximum)		May 17 to 29	Flow meter stopped logging data. SD card required reformatting. Manual readings were recorded for three days (May 21, 27 and 29).	13 days

Receiving Environment - Water Quality Guideline Observations									
Criteria Name	**Station Code**	**Sample ID**	**Bureau Veritas Sample ID**	**Bureau Veritas Job ID**	**Parameter**	**Criteria**	**Result**	**DL**	**Units**
WQG - ACUTE	NNL9	NNL9-10APR24-M	CLZ529	C425141	Dissolved Copper (Cu)	0.0005	0.00056	0.0002	mg/L
WQG - ACUTE	NNL9	NNL9-24APR24-M	CMQ241	C429115	Dissolved Copper (Cu)	0.00040	0.00048	0.0002	mg/L
WQG - ACUTE	NNLB	NNLB-10APR24-M	CLZ530	C425141	Dissolved Copper (Cu)	0.00040	0.0005	0.0002	mg/L
WQG - ACUTE	NNLB	NNLB-17APR24-M	CMG956	C427034	Dissolved Copper (Cu)	0.00040	0.0005	0.0002	mg/L
WQG - ACUTE	NNLB	NNLB-24APR24-M	CMQ242	C429115	Dissolved Copper (Cu)	0.00030	0.00049	0.0002	mg/L
WQG - ACUTE	NNLB	NNLB-1MAY24-M	CMY246	C430894	Dissolved Copper (Cu)	0.00040	0.00043	0.0002	mg/L
WQG - ACUTE	NNLB	NNLB-8MAY24-M	CNH380	C432979	Dissolved Copper (Cu)	0.00040	0.00048	0.0002	mg/L
WQG - CHRONIC	NNL4	NNL4-10APR24-M	CLZ528	C425141	Total Aluminum (Al)	0.03800	0.0424	0.003	mg/L
WQG - CHRONIC	NNL9	NNL9-10APR24-M	CLZ529	C425141	Total Aluminum (Al)	0.031	0.0446	0.003	mg/L
WQG - CHRONIC	NNL9	NNL9-17APR24-M	CMG955	C427034	Total Aluminum (Al)	0.031	0.0461	0.003	mg/L
WQG - CHRONIC	NNL9	NNL9-24APR24-M	CMQ241	C429115	Total Aluminum (Al)	0.030	0.0451	0.003	mg/L
WQG - CHRONIC	NNL9	NNL9-1MAY24-M	CMY245	C430894	Total Aluminum (Al)	0.032	0.0417	0.003	mg/L
WQG - CHRONIC	NNL9	NNL9-8MAY24-M	CNH379	C432979	Total Aluminum (Al)	0.035	0.0404	0.003	mg/L
WQG - CHRONIC	NNLB	NNLB-10APR24-M	CLZ530	C425141	Total Aluminum (Al)	0.028	0.0464	0.003	mg/L
WQG - CHRONIC	NNLB	NNLB-17APR24-M	CMG956	C427034	Total Aluminum (Al)	0.028	0.0469	0.003	mg/L
WQG - CHRONIC	NNLB	NNLB-24APR24-M	CMQ242	C429115	Total Aluminum (Al)	0.024	0.0438	0.003	mg/L
WQG - CHRONIC	NNLB	NNLB-1MAY24-M	CMY246	C430894	Total Aluminum (Al)	0.03	0.0457	0.003	mg/L
WQG - CHRONIC	NNLB	NNLB-8MAY24-M	CNH380	C432979	Total Aluminum (Al)	0.027	0.0428	0.003	mg/L
Seep - Water Quality Guideline Observations									
WQG - CHRONIC	LLE	Q1 - 5 weeks of rolling averages			Sulphate (SO4)	128	(150 to 208)	5	mg/L
WQG - CHRONIC	LLS	LLS-2APR24-M	CLQ465	C423250	Sulphate (SO4)	302.6	610	5	mg/L
WQG - CHRONIC	LLSM	LLSM-2APR24-M	CLQ466	C423250	Sulphate (SO4)	302.6	410	5	mg/L
WQG - ACUTE	LLS	LLS-2APR24-M	CLQ465	C423250	Total Iron (Fe)	1	1.22	0.01	mg/L
WQG - CHRONIC	S2A	S2A-3APR24-M	CLR633	C423492	Total Arsenic (As)	0.005	0.0194	0.0001	mg/L
WQG - CHRONIC	S2A	S2A-7MAY24-M	CNF771	C432563	Total Arsenic (As)	0.005	0.0217	0.0001	mg/L
WQG - CHRONIC	S2A	S2A-4JUN24-M	COT609	C440898	Total Arsenic (As)	0.005	0.029	0.0001	mg/L
WQG - CHRONIC	S2B	S2B-3APR24-M	CLR634	C423492	Total Arsenic (As)	0.005	0.0292	0.0001	mg/L
WQG - CHRONIC	S	S-3APR24-M	CLR632	C423492	Total Arsenic (As)	0.005	0.062	0.0001	mg/L
WQG - CHRONIC	S	S-7MAY24-M	CNF770	C432563	Total Arsenic (As)	0.005	0.0737	0.0001	mg/L
WQG - CHRONIC	S	S-4JUN24-M	COT608	C440898	Total Arsenic (As)	0.005	0.0688	0.0001	mg/L
WQG - CHRONIC	S	S-7MAY24-M	CNF770	C432563	Total Boron (B)	1.2	1.53	0.05	mg/L
WQG - CHRONIC	S	S-4JUN24-M	COT608	C440898	Total Boron (B)	1.2	1.36	0.05	mg/L

Table 4 Results Above Freshwater Aquatic Life Dissolved Copper Guideline 9 Page(s)

Site Name	Sample Number	Cu-D mg/L	Chronic - WQG	Count of Results Above Chronic - WQG	5 in 30 Average Cu-D	5 in 30 Average Chronic - WQG (mg/L)
LLM1	LLM1-10APR24-M	**0.0005**	0.0004	3 out of 5 weekly samples and average was above Chronic-WQG	**0.0004**	0.0003
	LLM1-17APR24-M	**0.0004**	**0.0002**			
	LLM1-24APR24-M	**0.0004**	0.0003			
	LLM1-1MAY24-M	0.0004	0.0006			
	LLM1-8May24-M	0.0004	0.0004			
LLM4	LLM4-10APR24-M	0.0004	0.0004	3 out of 6 weekly samples	0.0004	0.0004
	LLM4-17APR24-M	**0.0004**	0.0002			
	LLM4-17APR24-R	**0.0004**	**0.0002**			
	LLM4-24APR24-M	**0.0004**	0.0004			
	LLM4-1MAY24-M	0.0004	0.0006			
	LLM4-8May24-M	0.0004	0.0004			
LLM9	LLM9-10APR24-M	0.0004	0.0004	4 out of 5 results and average was above Chronic-WQG	**0.00045**	0.0003
	LLM9-17APR24-M	**0.0004**	**0.0002**			
	LLM9-24APR24-M	**0.0004**	0.0003			
	LLM9-1MAY24-M	**0.0006**	0.0004			
	LLM9-8May24-M	**0.0004**	0.0003			

RED = WQG - CHRONIC <0.0002 mg/L . **GREEN** = RESULT > WQG - CHRONIC

Table 4 Results Above Freshwater Aquatic Life Dissolved Copper Guideline 9 Page(s)

Site Name	Sample Number	Cu-D mg/L	Chronic - WQG	Count of Results Above Chronic - WQG	5 in 30 Average Cu-D	5 in 30 Average Chronic - WQG (mg/L)
LLMB	LLMB-10APR24-M	0.0004	0.0003	5 out of 5 results and average was above Chronic-WQG	0.00043	0.0002
	LLMB-17APR24-M	0.0004	**0.0002**			
	LLMB-24APR24-M	0.0006	**0.0002**			
	LLMB-1MAY24-M	0.0004	0.0003			
	LLMB-8May24-M	0.0004	**0.0002**			
LLEZ2	LLEZ2-10APR24-M	0.0007	0.0005	3 out of 5 results and average was above Chronic-WQG	0.00046	0.0003
	LLEZ2-17APR24-M	0.0004	**0.0002**			
	LLEZ2-24APR24-M	0.0004	0.0003			
	LLEZ2-1MAY24-M	0.0004	0.0006			
	LLEZ2-8MAY24-M	0.0004	0.0004			

RED = WQG - CHRONIC <0.0002 mg/L . **GREEN** = RESULT > WQG - CHRONIC

Table 4 Results Above Freshwater Aquatic Life Dissolved Copper Guideline 9 Page(s)

Site Name	Sample Number	Cu-D mg/L	Chronic - WQG	Count of Results Above Chronic - WQG	5 in 30 Average Cu-D	5 in 30 Average Chronic - WQG (mg/L)
LQL1	LQL1-10APR24-M	0.0006	0.0007	0 out of 6 results	0.00056	0.0006
	LQL1-17APR24-M	0.0006	0.0006			
	LQL1-25APR24-M	0.0006	0.0006			
	LQL1-25APR24-R	0.0006	0.0006			
	LQL1-2MAY24-M	0.0005	0.0007			
	LQL1-8MAY24-M	0.0006	0.0006			
LQL4	LQL4-10APR24-M	0.0005	0.0006	1 out of 5 results	0.00054	0.0006
	LQL4-17APR24-M	0.0006	0.0006			
	LQL4-25APR24-M	0.0005	0.0006			
	LQL4-2MAY24-M	0.0005	0.0006			
	LQL4-8MAY24-M	0.0006	0.0005			

RED = WQG - CHRONIC <0.0002 mg/L . **GREEN** = RESULT > WQG - CHRONIC

Table 4 Results Above Freshwater Aquatic Life Dissolved Copper Guideline 9 Page(s)

Site Name	Sample Number	Cu-D mg/L	Chronic - WQG	Count of Results Above Chronic - WQG	5 in 30 Average Cu-D	5 in 30 Average Chronic - WQG (mg/L)
LQL9	LQL9-10APR24-M	0.0005	0.0006	2 out of 5 results and average was above Chronic-WQG	**0.00056**	0.0005
	LQL9-17APR24-M	0.0006	0.0006			
	LQL9-25APR24-M	**0.0006**	0.0005			
	LQL9-2MAY24-M	0.0005	0.0006			
	LQL9-8MAY24-M	**0.0005**	0.0005			
LQLB	LQLB-10APR24-M	**0.0006**	0.0005	5 out of 5 results and average was above Chronic-WQG	**0.00056**	0.0004
	LQLB-17APR24-M	**0.0005**	0.0004			
	LQLB-25APR24-M	**0.0006**	0.0004			
	LQLB-2MAY24-M	**0.0006**	0.0004			
	LQLB-8MAY24-M	**0.0005**	0.0003			
MQL1	MQL1-10APR24-M	**0.0005**	0.0004	6 out of 6 results and average was above Chronic-WQG	**0.00054**	0.0004
	MQL1-17APR24-M	**0.0005**	0.0004			
	MQL1-24APR24-M	**0.0006**	0.0004			
	MQL1-24APR24-R	**0.0006**	0.0005			
	MQL1-1MAY24-M	**0.0005**	0.0005			
	MQL1-8May24-M	**0.0006**	0.0004			

RED = WQG - CHRONIC <0.0002 mg/L . **GREEN** = RESULT > WQG - CHRONIC

Table 4 Results Above Freshwater Aquatic Life Dissolved Copper Guideline 9 Page(s)

Site Name	Sample Number	Cu-D mg/L	Chronic - WQG	Count of Results Above Chronic - WQG	5 in 30 Average Cu-D	5 in 30 Average Chronic - WQG (mg/L)
MQL4	MQL4-10APR24-M	**0.0005**	0.0005	5 out of 6 results and average was above Chronic-WQG	**0.00054**	0.0005
	MQL4-17APR24-M	**0.0005**	0.0004			
	MQL4-24APR24-M	**0.0006**	0.0004			
	MQL4-1MAY24-M	**0.0005**	0.0005			
	MQL4-1MAY24-R	0.0005	0.0006			
	MQL4-8May24-M	**0.0006**	0.0004			
MQL9	MQL9-10APR24-M	0.0005	0.0005	3 out of 5 results and average was above Chronic-WQG	**0.00051**	0.0005
	MQL9-17APR24-M	**0.0006**	0.0005			
	MQL9-24APR24-M	**0.0005**	0.0004			
	MQL9-1MAY24-M	0.0005	0.0006			
	MQL9-8May24-M	**0.0005**	0.0004			
MQLB	MQLB-10APR24-M	**0.0005**	0.0004	5 out of 5 results and average was above Chronic-WQG	**0.00052**	0.0004
	MQLB-17APR24-M	**0.0005**	0.0003			
	MQLB-24APR24-M	**0.0006**	0.0004			
	MQLB-1MAY24-M	**0.0005**	0.0004			
	MQLB-8May24-M	**0.0005**	0.0004			

RED = WQG - CHRONIC <0.0002 mg/L . **GREEN** = RESULT > WQG - CHRONIC

Table 4 Results Above Freshwater Aquatic Life Dissolved Copper Guideline 9 Page(s)

Site Name	Sample Number	Cu-D mg/L	Chronic - WQG	Count of Results Above Chronic - WQG	5 in 30 Average Cu-D	5 in 30 Average Chronic - WQG (mg/L)
NNL1	NNL1-10APR24-M	**0.0005**	**0.0002**	5 out of 7 results and average was above Chronic-WQG	**0.00046**	0.0003
	NNL1-10APR24-R	**0.0005**	**0.0002**			
	NNL1-17APR24-M	**0.0005**	0.0002			
	NNL1-24APR24-M	**0.0004**	**0.0002**			
	NNL1-1MAY24-M	**0.0004**	0.0003			
	NNL1-8MAY24-M	0.0005	0.0006			
	NNL1-8MAY24-R	0.0005	0.0005			
NNL4	NNL4-10APR24-M	**0.0005**	**0.0002**	5 out of 5 results and average was above Chronic-WQG	**0.00047**	**0.0002**
	NNL4-17APR24-M	**0.0006**	**0.0002**			
	NNL4-24APR24-M	**0.0005**	**0.0002**			
	NNL4-1MAY24-M	**0.0004**	**0.0002**			
	NNL4-8MAY24-M	**0.0004**	0.0003			

RED = WQG - CHRONIC <0.0002 mg/L . **GREEN** = RESULT > WQG - CHRONIC

Table 4 Results Above Freshwater Aquatic Life Dissolved Copper Guideline 9 Page(s)

Site Name	Sample Number	Cu-D mg/L	Chronic - WQG	Count of Results Above Chronic - WQG	5 in 30 Average Cu-D	5 in 30 Average Chronic - WQG (mg/L)
NNL9	NNL9-10APR24-M	0.0006	0.0002	5 out of 5 results and average was above Chronic-WQG	0.00048	0.0002
	NNL9-17APR24-M	0.0005	0.0002			
	NNL9-24APR24-M	0.0005	0.0002			
	NNL9-1MAY24-M	0.0004	0.0002			
	NNL9-8MAY24-M	0.0005	0.0002			
NNLB	NNLB-10APR24-M	0.0005	0.0002	5 out of 5 results. Average was above Chronic-WQG	0.00048	0.0002
	NNLB-17APR24-M	0.0005	0.0002			
	NNLB-24APR24-M	0.0005	0.0002			
	NNLB-1MAY24-M	0.0004	0.0002			
	NNLB-8MAY24-M	0.0005	0.0002			
QR Upstream	WA-28MAR24-M	0.0006	0.0007	2 out of 6 results.	0.00047	0.0005
	WA-3APR24-M	0.0006	0.0005			
	WA-3APR24-R	0.0006	0.0006			
	WA-8APR24-M	0.0006	0.0007			
	WA-15APR24-M	0.0006	0.0007			
	WA-22APR24-M	0.0006	0.0005			

RED = WQG - CHRONIC <0.0002 mg/L . **GREEN** = RESULT > WQG - CHRONIC

Table 4 Results Above Freshwater Aquatic Life Dissolved Copper Guideline 9 Page(s)

Site Name	Sample Number	Cu-D mg/L	Chronic - WQG	Count of Results Above Chronic - WQG	5 in 30 Average Cu-D	5 in 30 Average Chronic - WQG (mg/L)
MQL Outlet	WB-28MAR24-M	0.0005	0.0006	1 out of 6 results.	0.00053	0.0006
	WB-28MAR24-R	0.0005	0.0006			
	WB-3APR24-M	**0.0005**	0.0005			
	WB-8APR24-M	0.0005	0.0007			
	WB-15APR24-M	0.0005	0.0006			
	WB-22APR24-M	0.0006	0.0007			
LL Outlet	LLO-28MAR24-M	0.0004	0.0006	0 out of 6 results.	0.00042	0.0008
	LLO-3APR24-M	0.0004	0.0005			
	LLO-8APR24-M	0.0004	0.0011			
	LLO-15APR24-M	0.0004	0.0008			
	LLO-22APR24-M	0.0004	0.0009			
	LLO-22APR24-R	0.0004	0.001			
NNL Outlet	NNO-28MAR24-M	**0.0005**	0.0003	2 out of 5 results.	0.00047	0.0005
	NNO-3APR24-M	**0.0005**	0.0004			
	NNO-8APR24-M	0.0005	0.0006			
	NNO-15APR24-M	0.0005	0.0006			
	NNO-22APR24-M	0.0005	0.0006			

RED = WQG - CHRONIC <0.0002 mg/L . **GREEN** = RESULT > WQG - CHRONIC

Table 4 Results Above Freshwater Aquatic Life Dissolved Copper Guideline 9 Page(s)

Site Name	Sample Number	Cu-D mg/L	Chronic - WQG	Count of Results Above Chronic - WQG	5 in 30 Average Cu-D	5 in 30 Average Chronic - WQG (mg/L)
QRDS1	QRDS1-28MAR24-M	0.0005	0.0007	0 out of 7 results.	0.00053	0.0008
	QRDS1-3APR24-M	0.0005	0.0006			
	QRDS1-8APR24-M	0.0005	0.0008			
	QRDS1-15APR24-M	0.0006	0.001			
	QRDS1-15APR24-R	0.0005	0.0009			
	QRDS1-22APR24-M	0.0005	0.001			
	QRDS1-22MAY24-X	0.0005	0.001			
7SQR	7SQR-28MAR24-M	**0.0005**	0.0004	3 out of 6 results.	0.00053	0.0006
	7SQR-3APR24-M	**0.0005**	0.0005			
	7SQR-8APR24-M	0.0005	0.0007			
	7SQR-15APR24-M	**0.0005**	0.0004			
	7SQR-22APR24-M	0.0005	0.0006			
	7SQR-22MAY24-X	0.0006	0.0006			
IRQR	IRQR-28MAR24-M	0.0006	0.0007	1 out of 5 results.	0.00055	0.0006
	IRQR-3APR24-M	0.0006	0.0008			
	IRQR-8APR24-M	0.0005	0.0007			
	IRQR-15APR24-M	**0.0006**	0.0005			
	IRQR-22APR24-M	0.0005	0.0006			

RED = WQG - CHRONIC <0.0002 mg/L . **GREEN** = RESULT > WQG - CHRONIC

Table 5 Contaminated Sites Regulations - Aquatic Life Standards 2 Page(s)

Ex-Situ Groundwater and In-Situ Flooded Mine Void Results Above CSR-AW

Criteria Name	Sample Number	Site Name	Date	Replicate	Bureau Veritas Sample ID	Bureau Veritas Job ID	Parameter	Criteria	Result	DL	Units
BC CSR Aquatic Life - LOW	S-3APR24-M	S	03-Apr-24		CLR632	C423492	Dissolved Arsenic (As)	0.05	0.0676	0.0001	mg/L
BC CSR Aquatic Life - LOW	QU1109S-9APR24-M	QU1109S	09-Apr-24		CLZ497	C425136	Dissolved Arsenic (As)	0.05	0.102	0.0001	mg/L
BC CSR Aquatic Life - LOW	QU0813A-16APR24-M	QU0813A	16-Apr-24		CMG939	C427029	Dissolved Arsenic (As)	0.05	0.344	0.0001	mg/L
BC CSR Aquatic Life - LOW	QU0813B-16APR24-M	QU0813B	16-Apr-24		CMG940	C427029	Dissolved Arsenic (As)	0.05	0.55	0.0001	mg/L
BC CSR Aquatic Life - LOW	7SA5-23APR24-M	7SA5	23-Apr-24		CMQ146	C429118	Dissolved Arsenic (As)	0.05	0.107	0.0001	mg/L
BC CSR Aquatic Life - LOW	S-7MAY24-M	S	07-May-24		CNF770	C432563	Dissolved Arsenic (As)	0.05	0.0762	0.0001	mg/L
BC CSR Aquatic Life - LOW	242MW-13MAY24-M	242MW	13-May-24		CNM849	C434112	Dissolved Arsenic (As)	0.05	0.0934	0.0001	mg/L
BC CSR Aquatic Life - LOW	QU0813A-14MAY24-M	QU0813A	14-May-24		CNO963	C434624	Dissolved Arsenic (As)	0.05	0.356	0.0001	mg/L
BC CSR Aquatic Life - LOW	QU0813B-14MAY24-M	QU0813B	14-May-24		CNO964	C434624	Dissolved Arsenic (As)	0.05	0.581	0.0001	mg/L
BC CSR Aquatic Life - LOW	QU1410-14MAY24-M	QU1410	14-May-24		CNO965	C434624	Dissolved Arsenic (As)	0.05	0.0961	0.0005	mg/L
BC CSR Aquatic Life - LOW	QU1410-14MAY24-R	QU1410	14-May-24	R	CNO966	C434624	Dissolved Arsenic (As)	0.05	0.0952	0.0005	mg/L
BC CSR Aquatic Life - LOW	QU1105S-15MAY24-M	QU1105S	15-May-24		CNV254	C435900	Dissolved Arsenic (As)	0.05	0.0573	0.0001	mg/L
BC CSR Aquatic Life - LOW	S-4JUN24-M	S	04-Jun-24		COT608	C440898	Dissolved Arsenic (As)	0.05	0.0767	0.0002	mg/L
BC CSR Aquatic Life - LOW	QU0821GD-5JUN24-M	QU0821GD	05-Jun-24		COV295	C441289	Dissolved Arsenic (As)	0.05	0.222	0.0005	mg/L
BC CSR Aquatic Life - LOW	QU0821GS-5JUN24-M	QU0821GS	05-Jun-24		COV296	C441289	Dissolved Arsenic (As)	0.05	0.207	0.0002	mg/L
BC CSR Aquatic Life - LOW	QU1410-17JUN24-M	QU1410	17-Jun-24		CPQ523	C445235	Dissolved Arsenic (As)	0.05	0.077	0.0005	mg/L
BC CSR Aquatic Life - LOW	QU0813A-24JUN24-M	QU0813A	24-Jun-24		CQC097	C447359	Dissolved Arsenic (As)	0.05	0.317	0.0001	mg/L
BC CSR Aquatic Life - LOW	QU0813B-25JUN24-M	QU0813B	25-Jun-24		CQC098	C447359	Dissolved Arsenic (As)	0.05	0.55	0.0001	mg/L
BC CSR Aquatic Life - LOW	3M7S-23MAY24-M	3M7S	23-May-24		COA327	C437055	Dissolved Cadmium (Cd)	0.0005	0.000815	0.00002	mg/L
BC CSR Aquatic Life - LOW	QU1105D-15MAY24-M	QU1105D	15-May-24		CNV255	C435900	Dissolved Selenium (Se)	0.02	0.0748	0.0005	mg/L
BC CSR Aquatic Life - LOW	QU1410-14MAY24-M	QU1410	14-May-24		CNO965	C434624	Sulphate (SO4)	1280	1800	25	mg/L
BC CSR Aquatic Life - LOW	QU1410-14MAY24-R	QU1410	14-May-24	R	CNO966	C434624	Sulphate (SO4)	1280	1800	25	mg/L
BC CSR Aquatic Life - LOW	QU1410-17JUN24-M	QU1410	17-Jun-24		CPQ523	C445235	Sulphate (SO4)	1280	1900	25	mg/L
BC CSR Aquatic Life - LOW	QU1109M-9APR24-M	QU1109M	09-Apr-24		CLZ496	C425136	Sulphide (as H2S)	0.02	0.031	0.002	mg/L

Table 5 Contaminated Sites Regulations - Aquatic Life Standards 2 Page(s)

Ex-Situ Groundwater and In-Situ Flooded Mine Void Results Above CSR-AW

Criteria Name	Sample Number	Site Name	Date	Replicate	Bureau Veritas Sample ID	Bureau Veritas Job ID	Parameter	Criteria	Result	DL	Units
BC CSR Aquatic Life - LOW	S-3APR24-M	S	03-Apr-24		CLR632	C423492	Dissolved Arsenic (As)	0.05	0.0676	0.0001	mg/L
BC CSR Aquatic Life - LOW	QU1109S-9APR24-M	QU1109S	09-Apr-24		CLZ497	C425136	Sulphide (as H2S)	0.02	1.5	0.019	mg/L
BC CSR Aquatic Life - LOW	QU0813A-16APR24-M	QU0813A	16-Apr-24		CMG939	C427029	Sulphide (as H2S)	0.02	0.18	0.002	mg/L
BC CSR Aquatic Life - LOW	QU0813B-16APR24-M	QU0813B	16-Apr-24		CMG940	C427029	Sulphide (as H2S)	0.02	0.022	0.002	mg/L
BC CSR Aquatic Life - LOW	1M2N-16APR24-M	1M2N	16-Apr-24		CMG942	C427031	Sulphide (as H2S)	0.02	0.094	0.002	mg/L
BC CSR Aquatic Life - LOW	5M#2-16APR24-M	5M#2	16-Apr-24		CMG943	C427031	Sulphide (as H2S)	0.02	0.023	0.002	mg/L
BC CSR Aquatic Life - LOW	INF-6MAY24-M	INF	06-May-24		CNE080	C432138	Sulphide (as H2S)	0.02	0.026	0.002	mg/L
BC CSR Aquatic Life - LOW	1M2N-7MAY24-M	1M2N	07-May-24		CNF766	C432560	Sulphide (as H2S)	0.02	0.079	0.002	mg/L
BC CSR Aquatic Life - LOW	QU1105S-15MAY24-M	QU1105S	15-May-24		CNV254	C435900	Sulphide (as H2S)	0.02	0.19	0.002	mg/L
BC CSR Aquatic Life - LOW	QU1105D-15MAY24-M	QU1105D	15-May-24		CNV255	C435900	Sulphide (as H2S)	0.02	20	0.38	mg/L
BC CSR Aquatic Life - LOW	QU1013D-28MAY24-M	QU1013D	28-May-24		COJ257	C438830	Sulphide (as H2S)	0.02	0.054	0.002	mg/L
BC CSR Aquatic Life - LOW	1M2N-4JUN24-M	1M2N	04-Jun-24		COT307	C440846	Sulphide (as H2S)	0.02	0.049	0.002	mg/L
BC CSR Aquatic Life - LOW	QU0821GD-5JUN24-M	QU0821GD	05-Jun-24		COV295	C441289	Sulphide (as H2S)	0.02	0.066	0.002	mg/L
BC CSR Aquatic Life - LOW	QU0821GS-5JUN24-M	QU0821GS	05-Jun-24		COV296	C441289	Sulphide (as H2S)	0.02	0.12	0.002	mg/L
BC CSR Aquatic Life - LOW	QU0813A-24JUN24-M	QU0813A	24-Jun-24		CQC097	C447359	Sulphide (as H2S)	0.02	0.24	0.002	mg/L

Table 6 Settling Pond # 4 - Authorized Discharge Location for North Mine Water 1 Page(s)

EMS ID	E207409	Stn Std	PL-N																	
Site Description	Settling Pond # 4 - Authorized Discharge Location for North Mine Water																			
Site Name	WD	Std Val																		
Date		Max	Min	02-04-2024	08-04-2024	15-04-2024	22-04-2024	29-04-2024	06-05-2024	13-05-2024	21-05-2024	27-05-2024	29-05-2024	03-06-2024	04-06-2024	05-06-2024	17-06-2024	24-06-2024	25-06-2024
Wlevel	m			0.1	0.153	0.101	0.139	0.096	0.145	0.144	0.095	0.131	0.164	0.114	0.131	0.121	0.121	0.083	0.077
pH-F	pH Units	8.5	6	7.56	7.71	7.47	7.76	7.75	7.53	7.63	7.62	7.65		7.58			7.66	7.57	
Cond-F	uS/cm			1701	1764	1517	156.8	1595	1627	1708	1484	1489		1607			1665	1559	
SO4-D	mg/L			420	420	380	410	410	400	400	350	370		390			400	320	
TSS	mg/L	25		<1.0	1.2	1.2	<1.0	4.4	6.4	3.2	<1.0	1.2		3.2			1.6	2.8	
Alk-T	mg/L			440					350					350					
Acidity83	mg/L			<1.0					<1.0					1.7					
Al-T	mg/L								0.0032										
As-T	mg/L								0.00135										
Ba-T	mg/L								0.0189										
B-T	mg/L								0.731										
Cd-T	mg/L								<0.000010										
Ca-T	mg/L								95.6										
Cr-T	mg/L								<0.0010										
Co-T	mg/L								<0.00020										
Cu-T	mg/L								<0.00050										
Hard-T	mg/L								285										
Fe-T	mg/L								0.421										
Pb-T	mg/L								<0.00020										
Mg-T	mg/L								11.3										
Mn-T	mg/L								0.0685										
Mo-T	mg/L								<0.0010										
Ni-T	mg/L								<0.0010										
K-T	mg/L								2.95										
S-T	mg/L								127										
Se-T	mg/L								<0.00010										
Si-T	mg/L								2.41										
Ag-T	mg/L								<0.000020										
Na-T	mg/L								209										
Sr-T	mg/L								0.916										
Zn-T	mg/L								<0.0050										
Al-D	mg/L	0.5		<0.015					<0.0030					<0.0030					
As-D	mg/L			0.00123					0.00103					0.00087					
Ba-D	mg/L			0.0227					0.0217					0.0215					
B-D	mg/L			0.88					0.859					0.906					
Be-D	mg/L			<0.00050					<0.00010					<0.00010					
Cd-D	mg/L			<0.000050					<0.000010					<0.000010					
Ca-D	mg/L			124					110					117					
Cr-D	mg/L			<0.0050					<0.0010					<0.0010					
Co-D	mg/L			<0.0010					<0.00020					<0.00020					
Cu-D	mg/L	0.02		<0.0010					0.00022					<0.00020					
Hard-D	mg/L			364					330					344					
Fe-D	mg/L	0.3		<0.025					0.0291					0.0291					
Pb-D	mg/L	0.05		<0.0010					<0.00020					<0.00020					
Mg-D	mg/L			13.3					13.2					12.5					
Mn-D	mg/L			0.131					0.0808					0.0735					
Mo-D	mg/L			<0.0050					<0.0010					<0.0010					
Ni-D	mg/L			<0.0050					<0.0010					<0.0010					
K-D	mg/L			3.59					3.46					3.46					
S-D	mg/L			151					148					149					
Se-D	mg/L			<0.00050					<0.00010					<0.00010					
Si-D	mg/L			2.95					2.90					2.87					
Na-D	mg/L			260					244					251					
Sr-D	mg/L			1.04					1.06					1.18					
Zn-D	mg/L	0.1		<0.025					<0.0050					<0.0050					
O&G	mg/L	10		<1.0										<1.0					

Table 7 2 North Pit Sump CCR Water Cover 1 Page(s)

EMS ID	E207412			
Site Description	2 North Pit Sump CCR Water Cover			
Site Name	WP			
Date		02-04-2024	06-05-2024	03-06-2024
pH-F	pH Units	7.97	7.95	7.97
Cond-F	uS/cm	1494	1549	1573
SO4-D	mg/L	490	460	450
TSS	mg/L	1.6	3.6	1.6
Alk-T	mg/L	260	320	350
Acidity83	mg/L	<1.0	<1.0	<1.0
Al-T	mg/L	0.0156	0.0080	0.0044
As-T	mg/L	0.00073	0.00079	0.00110
Ba-T	mg/L	0.0121	0.0136	0.0158
B-T	mg/L	0.526	0.688	0.780
Cd-T	mg/L	<0.000010	<0.000010	<0.000010
Ca-T	mg/L	112	97.9	101
Cr-T	mg/L	<0.0010	<0.0010	<0.0010
Co-T	mg/L	<0.00020	<0.00020	<0.00020
Cu-T	mg/L	<0.00050	<0.00050	<0.00050
Hard-T	mg/L	344	304	312
Fe-T	mg/L	0.255	0.271	0.377
Pb-T	mg/L	<0.00020	<0.00020	<0.00020
Mg-T	mg/L	15.9	14.6	14.5
Mn-T	mg/L	0.0269	0.0364	0.0594
Mo-T	mg/L	<0.0010	<0.0010	<0.0010
Ni-T	mg/L	0.0015	<0.0010	<0.0010
K-T	mg/L	2.38	2.94	3.46
S-T	mg/L	154	147	162
Se-T	mg/L	<0.00010	<0.00010	<0.00010
Si-T	mg/L	2.06	2.03	2.14
Ag-T	mg/L	<0.000020	<0.000020	<0.000020
Na-T	mg/L	139	175	219
Sr-T	mg/L	0.918	0.915	1.07
Zn-T	mg/L	<0.0050	<0.0050	<0.0050
Al-D	mg/L	<0.015	<0.0030	<0.0030
As-D	mg/L	<0.00050	0.00050	0.00073
Ba-D	mg/L	0.0135	0.0156	0.0166
B-D	mg/L	0.61	0.792	0.844
Be-D	mg/L	<0.00050	<0.00010	<0.00010
Cd-D	mg/L	<0.000050	<0.000010	<0.000010
Ca-D	mg/L	131	110	115
Cr-D	mg/L	<0.0050	<0.0010	<0.0010
Co-D	mg/L	<0.0010	<0.00020	<0.00020
Cu-D	mg/L	<0.0010	0.00034	0.00034
Hard-D	mg/L	400	345	350
Fe-D	mg/L	<0.025	0.0145	0.0700
Pb-D	mg/L	<0.0010	<0.00020	<0.00020
Mg-D	mg/L	17.8	16.7	15.2
Mn-D	mg/L	0.0239	0.0351	0.0498
Mo-D	mg/L	<0.0050	<0.0010	<0.0010
Ni-D	mg/L	<0.0050	<0.0010	<0.0010
K-D	mg/L	2.64	3.35	3.68
S-D	mg/L	156	168	175
Se-D	mg/L	<0.00050	<0.00010	<0.00010
Si-D	mg/L	2.06	2.40	2.37
Na-D	mg/L	160	205	238
Sr-D	mg/L	0.920	1.05	1.18
Zn-D	mg/L	<0.025	<0.0050	<0.0050

Table 8 2-North Portal Sump Effluent 1 Page(s)

EMS ID	E283433			
Site Description	2-North Portal Sump Effluent			
Site Name	2NPS			
Date		02-04-2024	06-05-2024	03-06-2024
pH-F	pH Units	7.4	7.32	7.61
Cond-F	uS/cm	2190	2100	2010
SO4-D	mg/L	880	870	870
Alk-T	mg/L	300	300	300
Acidity83	mg/L	2.2	7.8	4.6
Al-T	mg/L	0.0469	0.0217	0.0144
As-T	mg/L	0.00057	0.00044	0.00048
Ba-T	mg/L	0.0107	0.0112	0.0102
B-T	mg/L	0.689	0.742	0.741
Cd-T	mg/L	<0.000010	<0.000010	<0.000010
Ca-T	mg/L	241	223	219
Cr-T	mg/L	<0.0010	<0.0010	<0.0010
Co-T	mg/L	0.00137	0.00090	0.00056
Cu-T	mg/L	0.00058	<0.00050	<0.00050
Hard-T	mg/L	716	671	647
Fe-T	mg/L	0.197	0.164	0.177
Pb-T	mg/L	<0.00020	<0.00020	<0.00020
Mg-T	mg/L	27.5	27.7	24.5
Mn-T	mg/L	0.188	0.153	0.109
Mo-T	mg/L	<0.0010	<0.0010	<0.0010
Ni-T	mg/L	0.0036	0.0026	0.0021
K-T	mg/L	3.41	3.38	3.27
S-T	mg/L	316	286	272
Se-T	mg/L	<0.00010	<0.00010	0.00010
Si-T	mg/L	2.82	2.84	2.62
Ag-T	mg/L	<0.000020	<0.000020	<0.000020
Na-T	mg/L	169	177	168
Sr-T	mg/L	1.86	1.72	1.73
Zn-T	mg/L	<0.0050	<0.0050	<0.0050
Al-D	mg/L	0.015	0.0101	0.0096
As-D	mg/L	<0.00050	0.00030	0.00031
Ba-D	mg/L	0.0132	0.0122	0.0109
B-D	mg/L	0.81	0.82	0.86
Be-D	mg/L	<0.00050	<0.00020	<0.00020
Cd-D	mg/L	<0.000050	<0.000020	<0.000020
Ca-D	mg/L	329	227	250
Cr-D	mg/L	<0.0050	<0.0020	<0.0020
Co-D	mg/L	0.0018	0.00102	0.00061
Cu-D	mg/L	<0.0010	<0.00040	<0.00040
Hard-D	mg/L	955	683	738
Fe-D	mg/L	<0.025	0.025	0.013
Pb-D	mg/L	<0.0010	<0.00040	<0.00040
Mg-D	mg/L	32.3	28.0	27.3
Mn-D	mg/L	0.227	0.174	0.118
Mo-D	mg/L	<0.0050	<0.0020	<0.0020
Ni-D	mg/L	<0.0050	0.0029	0.0022
K-D	mg/L	4.02	3.48	3.61
S-D	mg/L	327	283	301
Se-D	mg/L	<0.00050	<0.00020	<0.00020
Si-D	mg/L	3.25	3.01	2.96
Na-D	mg/L	208	181	200
Sr-D	mg/L	1.96	1.74	1.90
Zn-D	mg/L	<0.025	<0.010	<0.010

Table 9 Road Side Ditch Draining into MQL 1 Page(s)

EMS ID		N/A			
Site Description		Road Side Ditch Draining into MQL			
Site Name		PDSR			
Date		02-04-2024	06-05-2024	06-05-2024	03-06-2024
pH-F	pH Units	8.2	7.14	7.14	7.54
Cond-F	uS/cm	1254	1448	1448	1530
SO4-D	mg/L	500	620	620	720
TSS	mg/L	<1.0	1.6	1.2	<1.0
Al-T	mg/L	0.0122	0.0073	0.0074	0.0061
As-T	mg/L	<0.00010	<0.00010	<0.00010	<0.00010
Ba-T	mg/L	0.0155	0.0186	0.0185	0.0233
B-T	mg/L	0.210	0.252	0.268	0.334
Cd-T	mg/L	<0.000010	<0.000010	<0.000010	<0.000010
Ca-T	mg/L	174	202	202	221
Cr-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010
Co-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020
Cu-T	mg/L	<0.00050	<0.00050	<0.00050	<0.00050
Hard-T	mg/L	551	649	648	702
Fe-T	mg/L	<0.010	<0.010	<0.010	<0.010
Pb-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020
Mg-T	mg/L	28.3	35.2	34.8	36.7
Mn-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010
Mo-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010
Ni-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010
K-T	mg/L	1.14	1.34	1.38	1.64
S-T	mg/L	167	200	195	221
Se-T	mg/L	<0.00010	<0.00010	<0.00010	0.00010
Si-T	mg/L	3.20	3.24	3.17	3.32
Ag-T	mg/L	<0.000020	<0.000020	<0.000020	<0.000020
Na-T	mg/L	32.9	37.7	37.7	41.2
Sr-T	mg/L	1.05	1.25	1.23	1.52
Zn-T	mg/L	<0.0050	<0.0050	<0.0050	<0.0050
Al-D	mg/L	<0.015	0.0065	0.0073	0.0083
As-D	mg/L	<0.00050	<0.00010	<0.00010	<0.00020
Ba-D	mg/L	0.0164	0.0212	0.0212	0.0273
B-D	mg/L	<0.25	0.290	0.303	0.41
Be-D	mg/L	<0.00050	<0.00010	<0.00010	<0.00020
Cd-D	mg/L	<0.000050	<0.000010	<0.000010	<0.000020
Ca-D	mg/L	192	221	226	280
Cr-D	mg/L	<0.0050	<0.0010	<0.0010	<0.0020
Co-D	mg/L	<0.0010	<0.00020	<0.00020	<0.00040
Cu-D	mg/L	<0.0010	0.00037	0.00037	0.00053
Hard-D	mg/L	600	703	721	884
Fe-D	mg/L	<0.025	<0.0050	<0.0050	<0.010
Pb-D	mg/L	<0.0010	<0.00020	<0.00020	<0.00040
Mg-D	mg/L	29.4	37.0	38.1	44.7
Mn-D	mg/L	<0.0050	<0.0010	<0.0010	<0.0020
Mo-D	mg/L	<0.0050	<0.0010	<0.0010	<0.0020
Ni-D	mg/L	<0.0050	<0.0010	<0.0010	<0.0020
K-D	mg/L	1.14	1.49	1.51	1.85
S-D	mg/L	156	213	213	267
Se-D	mg/L	<0.00050	<0.00010	<0.00010	<0.00020
Si-D	mg/L	3.00	3.63	3.71	4.13
Na-D	mg/L	35.5	41.3	40.9	53.6
Sr-D	mg/L	1.01	1.36	1.39	1.80
Zn-D	mg/L	<0.025	<0.0050	<0.0050	<0.010

Table 10 Culvert at Middle Quinsam Lake Road 1 Page(s)

EMS ID	E207411				
Site Description	Culvert at Middle Quinsam Lake Road				
Site Name	WC				
Date		02-04-2024	02-04-2024	06-05-2024	03-06-2024
pH-F	pH Units	8.2	8.2	8.08	8.22
Cond-F	uS/cm	1393	1393	1512	1460
SO4-D	mg/L	380	380	380	360
TSS	mg/L	<1.0	2.0	3.6	<1.0
Al-T	mg/L			0.0045	
As-T	mg/L			0.00051	
Ba-T	mg/L			0.0154	
B-T	mg/L			0.747	
Cd-T	mg/L			<0.000010	
Ca-T	mg/L			81.0	
Cr-T	mg/L			<0.0010	
Co-T	mg/L			<0.00020	
Cu-T	mg/L			<0.00050	
Hard-T	mg/L			247	
Fe-T	mg/L			0.093	
Pb-T	mg/L			<0.00020	
Mg-T	mg/L			10.9	
Mn-T	mg/L			0.0058	
Mo-T	mg/L			<0.0010	
Ni-T	mg/L			<0.0010	
K-T	mg/L			2.83	
S-T	mg/L			122	
Se-T	mg/L			<0.00010	
Si-T	mg/L			2.38	
Ag-T	mg/L			<0.000020	
Na-T	mg/L			204	
Sr-T	mg/L			0.857	
Zn-T	mg/L			<0.0050	
Al-D	mg/L			<0.0030	
As-D	mg/L			0.00048	
Ba-D	mg/L			0.0180	
B-D	mg/L			0.866	
Be-D	mg/L			<0.00010	
Cd-D	mg/L			<0.000010	
Ca-D	mg/L			90.9	
Cr-D	mg/L			<0.0010	
Co-D	mg/L			<0.00020	
Cu-D	mg/L			<0.00020	
Hard-D	mg/L			279	
Fe-D	mg/L			0.0120	
Pb-D	mg/L			<0.00020	
Mg-D	mg/L			12.6	
Mn-D	mg/L			0.0064	
Mo-D	mg/L			<0.0010	
Ni-D	mg/L			<0.0010	
K-D	mg/L			3.26	
S-D	mg/L			138	
Se-D	mg/L			<0.00010	
Si-D	mg/L			2.76	
Na-D	mg/L			233	
Sr-D	mg/L			0.978	
Zn-D	mg/L			<0.0050	

Table 11 Settling Pond #1 - Authorized Discharge Location for South Mine Water 1 Page(s)

EMS ID	E218582			Stn Std													
Site Description				Settling Pond #1 - Authorized Discharge Location for South Mine Water													
Site Name	SPD	Std Val															
Date		Max	Min	02-04-2024	08-04-2024	15-04-2024	22-04-2024	29-04-2024	06-05-2024	13-05-2024	21-05-2024	27-05-2024	03-06-2024	10-06-2024	10-06-2024	17-06-2024	24-06-2024
Wlevel	m			0.03		0.023	0.053	0.05	0.023	0.011	0.01	0.02	0.02	0.02	0.02	0.01	0.007
pH-F	pH Units	8.5	6	7.78	7.77	7.7	7.79	7.74	7.3	7.85	7.71	7.78	7.81	7.93	7.93	7.75	7.59
Cond-F	uS/cm			642	752	810	861	906	932	939	771	843	870	1038	1038	996	1073
SO4-D	mg/L			250	300	310	340	350	360	360	360	350	360	400	400	440	450
TSS	mg/L	25		1.6	1.6	<1.0	<1.0	1.2	2.8	<1.0	2.8	1.2	<1.0	<1.0	1.6	1.2	2.4
Alk-T	mg/L			93					110				90				
Acidity83	mg/L			<1.0					<1.0				1.3				
Al-T	mg/L								0.0048								
As-T	mg/L								0.00172								
Ba-T	mg/L								0.0112								
B-T	mg/L								0.258								
Cd-T	mg/L								0.000011								
Ca-T	mg/L								128								
Cr-T	mg/L								<0.0010								
Co-T	mg/L								<0.00020								
Cu-T	mg/L								<0.00050								
Hard-T	mg/L								383								
Fe-T	mg/L								0.077								
Pb-T	mg/L								<0.00020								
Mg-T	mg/L								15.8								
Mn-T	mg/L								0.0454								
Mo-T	mg/L								<0.0010								
Ni-T	mg/L								<0.0010								
K-T	mg/L								1.30								
S-T	mg/L								123								
Se-T	mg/L								<0.00010								
Si-T	mg/L								1.24								
Ag-T	mg/L								<0.000020								
Na-T	mg/L								32.2								
Sr-T	mg/L								0.884								
Zn-T	mg/L								<0.0050								
Al-D	mg/L	0.5		0.019					<0.0030				<0.0030				
As-D	mg/L			0.00172					0.00151				0.00165				
Ba-D	mg/L			0.0080					0.0113				0.0117				
B-D	mg/L			<0.25					0.292				0.260				
Be-D	mg/L			<0.00050					<0.00010				<0.00010				
Cd-D	mg/L			<0.000050					<0.000010				<0.000010				
Ca-D	mg/L			100					131				135				
Cr-D	mg/L			<0.0050					<0.0010				<0.0010				
Co-D	mg/L			<0.0010					<0.00020				<0.00020				
Cu-D	mg/L	0.02		<0.0010					<0.00020				<0.00020				
Hard-D	mg/L			296					394				412				
Fe-D	mg/L	0.5		0.028					0.0236				0.0546				
Pb-D	mg/L	0.05		<0.0010					<0.00020				<0.00020				
Mg-D	mg/L			11.1					16.3				18.0				
Mn-D	mg/L			0.0189					0.0211				0.0363				
Mo-D	mg/L			<0.0050					<0.0010				<0.0010				
Ni-D	mg/L			<0.0050					<0.0010				<0.0010				
K-D	mg/L			0.97					1.39				1.45				
S-D	mg/L			81					124				135				
Se-D	mg/L			<0.00050					<0.00010				0.00012				
Si-D	mg/L			2.20					1.28				0.80				
Na-D	mg/L			24.9					32.7				33.2				
Sr-D	mg/L			0.620					0.935				1.02				
Zn-D	mg/L	0.2		<0.025					<0.0050				<0.0050				
O&G	mg/L	10		<1.0									<1.0				

Table 12 Passive Treatment System (PTS) Influent from 2-S Mine Pool 1 Page(s)

Site Description		Passive Treatment System (PTS) Influent from 2-S Mine Pool														
Site Name	**INF**															
Date		02-04-2024	08-04-2024	08-04-2024	15-04-2024	22-04-2024	29-04-2024	06-05-2024	13-05-2024	21-05-2024	27-05-2024	27-05-2024	03-06-2024	10-06-2024	17-06-2024	24-06-2024
Flow	m3/s	0.0075	0.0076	0.0076	0.0076				0.0078	0.0078	0.0077	0.0077	0.0076	0.0078	0.0076	
pH-F	pH Units	7.07	6.99	6.99	6.76	6.93	6.78	6.46	7.02	6.89	7.02	7.02	7.08	7.08	7.02	7.06
Cond-F	uS/cm	1450	146.7	146.7	1494	1532	1537	1581	1667	1570	1578	1578	1590	1630	1620	1644
H2S	mg/L	<0.0020	<0.0020	<0.0020	<0.0020	0.0073	0.012	0.026	<0.0020	<0.0020	0.0036	<0.0020	<0.0020	<0.0020	<0.0020	0.040
SO4-D	mg/L	620	610	620	610	590	640	610	640	640	660	670	630	640	670	620
TSS	mg/L	5.6						6.4					7.2			
Alk-T	mg/L	240						250					250			
Acidity83	mg/L	4.9						10.6					8.5			
Al-T	mg/L	0.0058						<0.0030					<0.0030			
As-T	mg/L	0.00243						0.00350					0.00347			
Ba-T	mg/L	0.0181						0.0176					0.0180			
B-T	mg/L	0.572						0.566					0.606			
Cd-T	mg/L	<0.000010						<0.000010					<0.000010			
Ca-T	mg/L	202						214					215			
Cr-T	mg/L	<0.0010						<0.0010					<0.0010			
Co-T	mg/L	0.00068						0.00053					0.00057			
Cu-T	mg/L	0.00087						<0.00050					<0.00050			
Hard-T	mg/L	563						600					601			
Fe-T	mg/L	2.06						4.07					2.43			
Pb-T	mg/L	<0.00020						<0.00020					<0.00020			
Mg-T	mg/L	14.4						15.9					15.6			
Mn-T	mg/L	0.267						0.321					0.351			
Mo-T	mg/L	<0.0010						<0.0010					<0.0010			
Ni-T	mg/L	0.0012						<0.0010					<0.0010			
K-T	mg/L	1.66						1.74					1.83			
S-T	mg/L	207						193					207			
Se-T	mg/L	<0.00010						<0.00010					<0.00010			
Si-T	mg/L	2.72						2.81					2.68			
Ag-T	mg/L	<0.000020						<0.000020					<0.000020			
Na-T	mg/L	87.1						88.6					89.6			
Sr-T	mg/L	1.92						1.90					2.23			
Zn-T	mg/L	<0.0050						<0.0050					<0.0050			
Al-D	mg/L	<0.015						<0.0030					<0.0030			
As-D	mg/L	0.00209						0.00351					0.00361			
Ba-D	mg/L	0.0197						0.0202					0.0190			
B-D	mg/L	0.63						0.700					0.654			
Be-D	mg/L	<0.00050						<0.00010					<0.00010			
Cd-D	mg/L	<0.000050						<0.000010					<0.000010			
Ca-D	mg/L	236						225					249			
Cr-D	mg/L	<0.0050						<0.0010					<0.0010			
Co-D	mg/L	<0.0010						0.00060					0.00059			
Cu-D	mg/L	<0.0010						<0.00020					<0.00020			
Hard-D	mg/L	654						633					694			
Fe-D	mg/L	2.37						4.47					2.78			
Pb-D	mg/L	<0.0010						<0.00020					<0.00020			
Mg-D	mg/L	15.6						17.6					17.3			
Mn-D	mg/L	0.302						0.357					0.374			
Mo-D	mg/L	<0.0050						<0.0010					<0.0010			
Ni-D	mg/L	<0.0050						0.0011					0.0011			
K-D	mg/L	1.79						1.93					1.99			
S-D	mg/L	194						216					228			
Se-D	mg/L	<0.00050						0.00058					0.00024			
Si-D	mg/L	2.74						3.07					2.99			
Na-D	mg/L	97.9						97.2					105			
Sr-D	mg/L	1.91						2.21					2.43			
Zn-D	mg/L	<0.025						<0.0050					<0.0050			

Table 13 PTS Biochemical Reactor Cell 1 Page(s)

Site Description		PassiveTreatment System Biochemical Reactor Cell												
Site Name	BCR													
Date		02-04-2024	08-04-2024	15-04-2024	22-04-2024	29-04-2024	06-05-2024	13-05-2024	21-05-2024	27-05-2024	03-06-2024	10-06-2024	17-06-2024	24-06-2024
pH-F	pH Units	7.15	7.11	6.94	6.97	6.71	6.39	7.05	6.87	7.02	7.07	7.02	7.05	7.01
Cond-F	uS/cm	1355	1435	1450	1453	1484	1527	1577	1495	1512	1528	1606	1527	1609
H2S	mg/L	14	12	11	12	1.1	4.1	20	22	22	20	23	31	27
SO4-D	mg/L	550	600	520	550	600	570	550	620	560	580	590	580	560
TSS	mg/L	<1.0					3.2				1.2			
Alk-T	mg/L	260					260				280			
Acidity83	mg/L	5.1					13.9				10.3			
Al-T	mg/L	0.0052					0.0062				0.0040			
As-T	mg/L	<0.00010					0.00011				<0.00010			
Ba-T	mg/L	0.0224					0.0233				0.0247			
B-T	mg/L	0.594					0.593				0.614			
Cd-T	mg/L	<0.000010					0.000073				<0.000010			
Ca-T	mg/L	198					196				212			
Cr-T	mg/L	<0.0010					<0.0010				<0.0010			
Co-T	mg/L	<0.00020					<0.00020				<0.00020			
Cu-T	mg/L	<0.00050					<0.00050				<0.00050			
Hard-T	mg/L	551					551				590			
Fe-T	mg/L	<0.010					<0.010				<0.010			
Pb-T	mg/L	<0.00020					<0.00020				<0.00020			
Mg-T	mg/L	13.4					14.8				14.6			
Mn-T	mg/L	0.251					0.286				0.237			
Mo-T	mg/L	<0.0010					<0.0010				<0.0010			
Ni-T	mg/L	<0.0010					<0.0010				<0.0010			
K-T	mg/L	1.71					1.68				1.81			
S-T	mg/L	188					178				190			
Se-T	mg/L	<0.00010					<0.00010				0.00010			
Si-T	mg/L	2.86					2.83				2.92			
Ag-T	mg/L	<0.000020					<0.000020				<0.000020			
Na-T	mg/L	88.2					88.0				87.1			
Sr-T	mg/L	1.93					1.92				2.15			
Zn-T	mg/L	<0.0050					<0.0050				<0.0050			
Al-D	mg/L	<0.015					0.0035				0.0040			
As-D	mg/L	<0.00050					<0.00010				<0.00010			
Ba-D	mg/L	0.0261					0.0264				0.0262			
B-D	mg/L	0.67					0.678				0.718			
Be-D	mg/L	<0.00050					<0.00010				<0.00010			
Cd-D	mg/L	<0.000050					<0.000010				<0.000010			
Ca-D	mg/L	230					219				221			
Cr-D	mg/L	<0.0050					<0.0010				<0.0010			
Co-D	mg/L	<0.0010					<0.00020				<0.00020			
Cu-D	mg/L	<0.0010					<0.00020				<0.00020			
Hard-D	mg/L	639					610				618			
Fe-D	mg/L	<0.025					<0.0050				0.0067			
Pb-D	mg/L	<0.0010					<0.00020				<0.00020			
Mg-D	mg/L	15.6					15.3				16.3			
Mn-D	mg/L	0.288					0.317				0.250			
Mo-D	mg/L	<0.0050					<0.0010				<0.0010			
Ni-D	mg/L	<0.0050					<0.0010				<0.0010			
K-D	mg/L	1.93					1.86				1.89			
S-D	mg/L	224					340				300			
Se-D	mg/L	<0.00050					0.0297				0.0237			
Si-D	mg/L	3.84					3.18				3.28			
Na-D	mg/L	104					98.0				98.4			
Sr-D	mg/L	2.00					2.17				2.40			
Zn-D	mg/L	<0.025					<0.0050				<0.0050			

Table 14 2 South Pit Inflow 1 Page(s)

Site Description		2 South Pit Inflow													
Site Name	2SI														
Date		02-04-2024	08-04-2024	15-04-2024	22-04-2024	29-04-2024	06-05-2024	13-05-2024	21-05-2024	27-05-2024	03-06-2024	10-06-2024	17-06-2024	24-06-2024	24-06-2024
pH-F	pH Units	7.44	7.56	7.48	7.57	7.43	6.97	7.81	7.63	7.62	7.71	7.78	7.79	7.78	7.78
Cond-F	uS/cm	244	1131	1207	1275	1189	1279	1471	1385	1206	1289	1411	1458	1550	1550
H2S	mg/L	0.0036	0.036	0.025	0.028	0.0095	0.037	0.052	0.062	0.065	0.0050	0.056	0.11	0.097	0.10
SO4-D	mg/L	180	440	440	480	450	480	540	570	450	490	580	550	570	590
TSS	mg/L	1.2									2.4				
Alk-T	mg/L	76					210				220				
Acidity83	mg/L	<1.0					1.9				2.8				
Al-T	mg/L	0.0467					0.0045				0.0061				
As-T	mg/L	<0.00010					0.00027				0.00041				
Ba-T	mg/L	0.0037					0.0201				0.0212				
B-T	mg/L	0.076					0.506				0.541				
Cd-T	mg/L	<0.000010					<0.000010				<0.000010				
Ca-T	mg/L	25.0					176				183				
Cr-T	mg/L	<0.0010					<0.0010				<0.0010				
Co-T	mg/L	<0.00020					<0.00020				0.00022				
Cu-T	mg/L	<0.00050					<0.00050				<0.00050				
Hard-T	mg/L	72.6					497				512				
Fe-T	mg/L	0.116					0.200				0.283				
Pb-T	mg/L	<0.00020					<0.00020				<0.00020				
Mg-T	mg/L	2.49					14.0				13.1				
Mn-T	mg/L	0.0327					0.181				0.267				
Mo-T	mg/L	<0.0010					<0.0010				<0.0010				
Ni-T	mg/L	<0.0010					<0.0010				<0.0010				
K-T	mg/L	0.199					1.46				1.39				
S-T	mg/L	20.6					162				159				
Se-T	mg/L	<0.00010					<0.00010				<0.00010				
Si-T	mg/L	3.55					3.10				3.30				
Ag-T	mg/L	<0.000020					<0.000020				<0.000020				
Na-T	mg/L	8.13					73.6				69.8				
Sr-T	mg/L	0.184					1.59				1.71				
Zn-T	mg/L	<0.0050					<0.0050				<0.0050				
Al-D	mg/L	0.028					<0.0030				<0.0030				
As-D	mg/L	<0.00050					0.00026				0.00037				
Ba-D	mg/L	0.0067					0.0212				0.0229				
B-D	mg/L	<0.25					0.558				0.588				
Be-D	mg/L	<0.00050					<0.00010				<0.00010				
Cd-D	mg/L	<0.000050					<0.000010				<0.000010				
Ca-D	mg/L	54.5					179				200				
Cr-D	mg/L	<0.0050					<0.0010				<0.0010				
Co-D	mg/L	<0.0010					<0.00020				0.00022				
Cu-D	mg/L	<0.0010					<0.00020				<0.00020				
Hard-D	mg/L	155					505				563				
Fe-D	mg/L	0.071					0.0779				0.0656				
Pb-D	mg/L	<0.0010					<0.00020				<0.00020				
Mg-D	mg/L	4.60					14.3				15.2				
Mn-D	mg/L	0.0532					0.194				0.276				
Mo-D	mg/L	<0.0050					<0.0010				<0.0010				
Ni-D	mg/L	<0.0050					<0.0010				<0.0010				
K-D	mg/L	0.41					1.50				1.59				
S-D	mg/L	44					167				189				
Se-D	mg/L	<0.00050					0.00019				0.00017				
Si-D	mg/L	3.59					3.37				3.45				
Na-D	mg/L	19.0					73.4				86.3				
Sr-D	mg/L	0.376					1.67				1.97				
Zn-D	mg/L	<0.025					<0.0050				<0.0050				

Table 15 PTS Sulphide Polishing Cell 1 Page(s)

Site Description		Passive Treatment System Sulphide Polishing Cell											
Site Name	**SPCEFF**												
Date		02-04-2024	08-04-2024	15-04-2024	22-04-2024	29-04-2024	06-05-2024	21-05-2024	27-05-2024	03-06-2024	10-06-2024	17-06-2024	24-06-2024
pH-F	pH Units	7.36	7.47	7.59	7.37	7.17	6.9	7.46	7.56	7.66	7.62	7.7	7.62
Cond-F	uS/cm	1498	1384	1357	1440	1464	1472	1365	1368	1316	1381	1376	1428
H2S	mg/L	2.0	0.012	0.016	0.067	0.073	0.0022	0.0032	0.0036	0.0022	<0.0020	<0.0020	0.0047
SO4-D	mg/L	520	490	470	510	540	530	500	460	460	470	470	450
TSS	mg/L	2.4					<1.0			1.6			
Alk-T	mg/L	270					270			300			
Acidity83	mg/L	2.8					4.3			3.4			
Al-T	mg/L	0.0098					0.0094			0.0120			
As-T	mg/L	0.00038					0.00086			0.00132			
Ba-T	mg/L	0.0228					0.0224			0.0199			
B-T	mg/L	0.587					0.574			0.632			
Cd-T	mg/L	<0.000010					<0.000010			<0.000010			
Ca-T	mg/L	190					188			183			
Cr-T	mg/L	<0.0010					<0.0010			<0.0010			
Co-T	mg/L	<0.00020					0.00023			0.00025			
Cu-T	mg/L	<0.00050					0.00055			0.00277			
Hard-T	mg/L	530					530			514			
Fe-T	mg/L	0.177					0.317			0.384			
Pb-T	mg/L	0.00036					<0.00020			<0.00020			
Mg-T	mg/L	13.6					14.8			13.5			
Mn-T	mg/L	0.198					0.0722			0.0313			
Mo-T	mg/L	<0.0010					0.0011			<0.0010			
Ni-T	mg/L	<0.0010					<0.0010			<0.0010			
K-T	mg/L	1.62					1.63			1.38			
S-T	mg/L	172					172			157			
Se-T	mg/L	<0.00010					<0.00010			0.00011			
Si-T	mg/L	2.90					2.66			2.21			
Ag-T	mg/L	<0.000020					<0.000020			<0.000020			
Na-T	mg/L	85.4					86.9			84.1			
Sr-T	mg/L	1.86					1.86			2.06			
Zn-T	mg/L	<0.0050					<0.0050			<0.0050			
Al-D	mg/L	<0.015					0.0057			0.0098			
As-D	mg/L	<0.00050					0.00070			0.00109			
Ba-D	mg/L	0.0251					0.0251			0.0213			
B-D	mg/L	0.64					0.651			0.687			
Be-D	mg/L	<0.00050					<0.00010			<0.00010			
Cd-D	mg/L	<0.000050					<0.000010			<0.000010			
Ca-D	mg/L	231					207			210			
Cr-D	mg/L	<0.0050					<0.0010			<0.0010			
Co-D	mg/L	<0.0010					0.00023			0.00026			
Cu-D	mg/L	<0.0010					0.00025			0.00135			
Hard-D	mg/L	638					580			587			
Fe-D	mg/L	0.107					0.0735			0.192			
Pb-D	mg/L	<0.0010					<0.00020			<0.00020			
Mg-D	mg/L	14.6					15.6			15.5			
Mn-D	mg/L	0.220					0.0793			0.0342			
Mo-D	mg/L	<0.0050					<0.0010			<0.0010			
Ni-D	mg/L	<0.0050					<0.0010			<0.0010			
K-D	mg/L	1.75					1.73			1.52			
S-D	mg/L	174					186			174			
Se-D	mg/L	<0.00050					0.00118			<0.00010			
Si-D	mg/L	2.98					3.01			2.45			
Na-D	mg/L	95.7					93.0			99.9			
Sr-D	mg/L	1.86					2.12			2.25			
Zn-D	mg/L	<0.025					<0.0050			<0.0050			

Table 16 2-South Pit in Pit Water Cover Over PAG-CCR 1 Page(s)

EMS ID	E292127			
Site Description	2-South Pit in Pit Water Cover Over PAG-CCR			
Site Name	2S			
Date		02-04-2024	06-05-2024	03-06-2024
pH-F	pH Units	8.13	7.32	8.12
Cond-F	uS/cm	726	1144	1193
SO4-D	mg/L	260	430	480
Alk-T	mg/L	97	150	150
Acidity83	mg/L	<1.0	1.1	<1.0
Al-T	mg/L	0.0139	0.0031	<0.0030
As-T	mg/L	0.00014	0.00019	0.00022
Ba-T	mg/L	0.0100	0.0160	0.0156
B-T	mg/L	0.246	0.421	0.443
Cd-T	mg/L	<0.000010	<0.000010	<0.000010
Ca-T	mg/L	86.2	141	150
Cr-T	mg/L	<0.0010	<0.0010	<0.0010
Co-T	mg/L	<0.00020	<0.00020	<0.00020
Cu-T	mg/L	<0.00050	<0.00050	<0.00050
Hard-T	mg/L	245	404	426
Fe-T	mg/L	0.050	0.024	0.033
Pb-T	mg/L	<0.00020	<0.00020	<0.00020
Mg-T	mg/L	7.28	12.6	12.4
Mn-T	mg/L	0.0156	0.0124	0.0154
Mo-T	mg/L	<0.0010	<0.0010	<0.0010
Ni-T	mg/L	<0.0010	<0.0010	<0.0010
K-T	mg/L	0.714	1.29	1.21
S-T	mg/L	82.2	145	151
Se-T	mg/L	<0.00010	<0.00010	<0.00010
Si-T	mg/L	2.66	2.15	2.26
Ag-T	mg/L	<0.000020	<0.000020	<0.000020
Na-T	mg/L	35.4	65.6	69.7
Sr-T	mg/L	0.761	1.35	1.49
Zn-T	mg/L	<0.0050	<0.0050	<0.0050
Al-D	mg/L	<0.015	<0.0030	<0.0030
As-D	mg/L	<0.00050	0.00020	0.00022
Ba-D	mg/L	0.0107	0.0181	0.0186
B-D	mg/L	0.26	0.500	0.546
Be-D	mg/L	<0.00050	<0.00010	<0.00010
Cd-D	mg/L	<0.000050	<0.000010	<0.000010
Ca-D	mg/L	96.4	151	176
Cr-D	mg/L	<0.0050	<0.0010	<0.0010
Co-D	mg/L	<0.0010	<0.00020	<0.00020
Cu-D	mg/L	<0.0010	0.00025	0.00021
Hard-D	mg/L	272	431	499
Fe-D	mg/L	<0.025	0.0062	0.0144
Pb-D	mg/L	<0.0010	<0.00020	<0.00020
Mg-D	mg/L	7.69	13.3	14.6
Mn-D	mg/L	<0.0050	0.0054	0.0110
Mo-D	mg/L	<0.0050	<0.0010	<0.0010
Ni-D	mg/L	<0.0050	<0.0010	<0.0010
K-D	mg/L	0.73	1.40	1.51
S-D	mg/L	80	159	182
Se-D	mg/L	<0.00050	0.00010	<0.00010
Si-D	mg/L	2.57	2.39	2.59
Na-D	mg/L	37.7	70.6	83.7
Sr-D	mg/L	0.744	1.51	1.84
Zn-D	mg/L	<0.025	<0.0050	<0.0050

Table 17 2-South Outflow Culvert into 3-South Pit 1 Page(s)

EMS ID				
Site Description	**2-South Outflow Culvert into 3-South Pit**			
Site Name	**2SC**			
Date		**02-04-2024**	**06-05-2024**	**03-06-2024**
pH-F	pH Units	7.9	7.24	7.83
Cond-F	uS/cm	1348	1419	1442
SO4-D	mg/L	640	590	640
Alk-T	mg/L	190	200	190
Acidity83	mg/L	<1.0	2.4	2.1
Al-T	mg/L	<0.0030	<0.0030	<0.0030
As-T	mg/L	0.00018	0.00020	0.00024
Ba-T	mg/L	0.0115	0.0112	0.0130
B-T	mg/L	0.269	0.303	0.349
Cd-T	mg/L	<0.000010	0.000025	<0.000010
Ca-T	mg/L	234	215	232
Cr-T	mg/L	<0.0010	<0.0010	<0.0010
Co-T	mg/L	<0.00020	<0.00020	<0.00020
Cu-T	mg/L	<0.00050	<0.00050	<0.00050
Hard-T	mg/L	704	653	685
Fe-T	mg/L	0.023	<0.010	0.017
Pb-T	mg/L	<0.00020	<0.00020	<0.00020
Mg-T	mg/L	29.1	28.2	25.5
Mn-T	mg/L	0.0039	0.0037	0.0201
Mo-T	mg/L	<0.0010	<0.0010	<0.0010
Ni-T	mg/L	<0.0010	<0.0010	<0.0010
K-T	mg/L	1.80	1.84	1.98
S-T	mg/L	207	192	205
Se-T	mg/L	0.00021	0.00018	0.00035
Si-T	mg/L	2.30	2.17	2.24
Ag-T	mg/L	<0.000020	<0.000020	<0.000020
Na-T	mg/L	29.7	33.4	43.2
Sr-T	mg/L	1.35	1.29	1.43
Zn-T	mg/L	0.0060	<0.0050	<0.0050
Al-D	mg/L	<0.015	<0.0060	<0.0060
As-D	mg/L	<0.00050	<0.00020	0.00021
Ba-D	mg/L	0.0128	0.0132	0.0150
B-D	mg/L	0.28	0.40	0.44
Be-D	mg/L	<0.00050	<0.00020	<0.00020
Cd-D	mg/L	<0.000050	<0.000020	<0.000020
Ca-D	mg/L	262	251	256
Cr-D	mg/L	<0.0050	<0.0020	<0.0020
Co-D	mg/L	<0.0010	<0.00040	<0.00040
Cu-D	mg/L	<0.0010	0.00047	<0.00040
Hard-D	mg/L	781	759	760
Fe-D	mg/L	<0.025	<0.010	0.010
Pb-D	mg/L	<0.0010	<0.00040	<0.00040
Mg-D	mg/L	30.6	32.3	29.3
Mn-D	mg/L	<0.0050	0.0041	0.0229
Mo-D	mg/L	<0.0050	<0.0020	<0.0020
Ni-D	mg/L	<0.0050	<0.0020	<0.0020
K-D	mg/L	1.93	2.17	2.03
S-D	mg/L	208	226	231
Se-D	mg/L	<0.00050	0.00033	0.00057
Si-D	mg/L	2.19	2.62	2.29
Na-D	mg/L	33.5	38.7	48.6
Sr-D	mg/L	1.34	1.50	1.63
Zn-D	mg/L	<0.025	<0.010	<0.010

Table 18 3-South Pit Water Cover Over PAG-CCR 1 Page(s)

EMS ID	E217015			
Site Description	3-South Pit Water Cover Over PAG-CCR			
Site Name	3S			
Date		02-04-2024	06-05-2024	03-06-2024
pH-F	pH Units	7.93	7.26	7.9
Cond-F	uS/cm	1323	1418	1428
SO4-D	mg/L	630	580	680
Alk-T	mg/L	190	200	190
Acidity83	mg/L	<1.0	2.1	1.7
Al-T	mg/L	0.0037	<0.0030	<0.0030
As-T	mg/L	0.00018	0.00017	0.00022
Ba-T	mg/L	0.0115	0.0111	0.0131
B-T	mg/L	0.272	0.313	0.350
Cd-T	mg/L	<0.000010	<0.000010	<0.000010
Ca-T	mg/L	234	225	231
Cr-T	mg/L	<0.0010	<0.0010	<0.0010
Co-T	mg/L	<0.00020	<0.00020	<0.00020
Cu-T	mg/L	<0.00050	<0.00050	<0.00050
Hard-T	mg/L	703	677	679
Fe-T	mg/L	0.019	<0.010	0.015
Pb-T	mg/L	<0.00020	<0.00020	<0.00020
Mg-T	mg/L	29.0	27.9	25.1
Mn-T	mg/L	0.0038	0.0033	0.0193
Mo-T	mg/L	<0.0010	<0.0010	<0.0010
Ni-T	mg/L	<0.0010	<0.0010	<0.0010
K-T	mg/L	1.85	1.85	1.97
S-T	mg/L	211	191	208
Se-T	mg/L	0.00022	0.00016	0.00034
Si-T	mg/L	2.30	2.27	2.29
Ag-T	mg/L	<0.000020	<0.000020	<0.000020
Na-T	mg/L	29.9	33.1	42.8
Sr-T	mg/L	1.37	1.27	1.45
Zn-T	mg/L	<0.0050	<0.0050	<0.0050
Al-D	mg/L	<0.015	<0.0060	<0.0060
As-D	mg/L	<0.00050	<0.00020	<0.00020
Ba-D	mg/L	0.0121	0.0130	0.0149
B-D	mg/L	0.29	0.39	0.42
Be-D	mg/L	<0.00050	<0.00020	<0.00020
Cd-D	mg/L	<0.000050	<0.000020	<0.000020
Ca-D	mg/L	261	259	259
Cr-D	mg/L	<0.0050	<0.0020	<0.0020
Co-D	mg/L	<0.0010	<0.00040	<0.00040
Cu-D	mg/L	<0.0010	<0.00040	<0.00040
Hard-D	mg/L	774	781	769
Fe-D	mg/L	<0.025	<0.010	<0.010
Pb-D	mg/L	<0.0010	<0.00040	<0.00040
Mg-D	mg/L	29.6	32.7	29.3
Mn-D	mg/L	<0.0050	0.0040	0.0219
Mo-D	mg/L	<0.0050	<0.0020	<0.0020
Ni-D	mg/L	<0.0050	<0.0020	<0.0020
K-D	mg/L	1.88	2.18	2.03
S-D	mg/L	198	227	228
Se-D	mg/L	<0.00050	0.00029	0.00054
Si-D	mg/L	2.17	2.73	2.31
Na-D	mg/L	32.5	38.9	48.5
Sr-D	mg/L	1.31	1.50	1.62
Zn-D	mg/L	<0.025	<0.010	<0.010

Table 19 Culvert Downstream End at Access Road 1 Page(s)

EMS ID	E217014				
Site Description	Culvert Downstream End at Access Road				
Site Name	SPC				
Date		02-04-2024	06-05-2024	03-06-2024	03-06-2024
pH-F	pH Units	7.69	7.05	7.8	7.8
Cond-F	uS/cm	311	602	644	644
SO4-D	mg/L	110	230	260	250
TSS	mg/L	<1.0	1.6	<1.0	<1.0
Alk-T	mg/L	45	70	78	77
Acidity83	mg/L	<1.0	<1.0	<1.0	<1.0
Al-T	mg/L		0.0388		
As-T	mg/L		0.00039		
Ba-T	mg/L		0.0134		
B-T	mg/L		0.160		
Cd-T	mg/L		<0.000010		
Ca-T	mg/L		72.2		
Cr-T	mg/L		<0.0010		
Co-T	mg/L		<0.00020		
Cu-T	mg/L		0.00056		
Hard-T	mg/L		219		
Fe-T	mg/L		0.047		
Pb-T	mg/L		<0.00020		
Mg-T	mg/L		9.33		
Mn-T	mg/L		0.0014		
Mo-T	mg/L		<0.0010		
Ni-T	mg/L		<0.0010		
K-T	mg/L		0.610		
S-T	mg/L		69.0		
Se-T	mg/L		<0.00010		
Si-T	mg/L		2.02		
Ag-T	mg/L		<0.000020		
Na-T	mg/L		18.3		
Sr-T	mg/L		0.479		
Zn-T	mg/L		<0.0050		
Al-D	mg/L		0.0340		
As-D	mg/L		0.00043		
Ba-D	mg/L		0.0150		
B-D	mg/L		0.171		
Be-D	mg/L		<0.00010		
Cd-D	mg/L		<0.000010		
Ca-D	mg/L		82.9		
Cr-D	mg/L		<0.0010		
Co-D	mg/L		<0.00020		
Cu-D	mg/L		0.00038		
Hard-D	mg/L		250		
Fe-D	mg/L		0.0368		
Pb-D	mg/L		<0.00020		
Mg-D	mg/L		10.4		
Mn-D	mg/L		<0.0010		
Mo-D	mg/L		<0.0010		
Ni-D	mg/L		<0.0010		
K-D	mg/L		0.741		
S-D	mg/L		76.9		
Se-D	mg/L		<0.00010		
Si-D	mg/L		2.37		
Na-D	mg/L		20.2		
Sr-D	mg/L		0.541		
Zn-D	mg/L		<0.0050		

SPC was dry July though to November.

Table 20 South End Mine Water Entering Long Lake Near the Outlet 1 Page(s)

EMS ID	E292130					Stn Std	Max-WQG										
Site Description			South End Mine Water Entering Long Lake Near the Outlet														
	16																
Site Name	LLE	Std Val															
Date		Max	02-04-2024	08-04-2024	15-04-2024	22-04-2024	29-04-2024	06-05-2024	13-05-2024	13-05-2024	21-05-2024	21-05-2024	27-05-2024	03-06-2024	10-06-2024	17-06-2024	24-06-2024
Flow	m3/s		0.06696	0.0559	0.00545	0.00374	0.01808	0.01172	0.00324	0.00324	0.0039	0.0039	0.02388	0.02732	0.00578	0.01408	0.00319
pH-F	pH Units		7.52	7.32	7.09	7.11	7.22	6.73	7.18	7.18	7.07	7.07	7.25	7.55	7.37	7.3	7.16
Cond-F	uS/cm		348	445	388	488	536	469	518	518	608	608	436	543	696	581	702
SO4-D	mg/L		110	170	140	180	190	160	220	220	220	220	150	210	210	210	260
TSS	mg/L		1.2					<1.0						<1.0			
DOC	mg/L		4.8					5.0						5.9			
Alk-T	mg/L		44					57						65			
Acidity83	mg/L		<1.0					1.6						1.3			
N-NH3	mg/L	12.9	<0.015					<0.015						<0.015			
N-NO23	mg/L		<0.020					<0.020						<0.020			
P-T	mg/L		0.0050					0.0058						0.0043			
Al-T	mg/L		0.0577					0.0265						0.0270			
Al-T (Chronic WQG)	mg/L		0.270					0.190						0.330			
As-T	mg/L		0.00062					0.00042						0.00041			
Ba-T	mg/L		0.0111					0.0190						0.0170			
B-T	mg/L		0.098					0.155						0.136			
Cd-T	mg/L		<0.000010					<0.000010						<0.000010			
Ca-T	mg/L		39.4					54.3						65.6			
Cr-T	mg/L		<0.0010					<0.0010						<0.0010			
Co-T	mg/L	0.11	<0.00020					<0.00020						<0.00020			
Cu-T	mg/L		<0.00050					<0.00050						<0.00050			
Hard-T	mg/L		119					166						196			
Fe-T	mg/L	1.0	0.145					0.233						0.184			
Pb-T	mg/L	0.0176	<0.00020					<0.00020						<0.00020			
Mg-T	mg/L		5.01					7.42						7.90			
Mn-T	mg/L	0.8706	0.0110					0.0276						0.0203			
Mo-T	mg/L	46.0	<0.0010					<0.0010						<0.0010			
Ni-T	mg/L		<0.0010					<0.0010						<0.0010			
K-T	mg/L		0.441					0.576						0.552			
S-T	mg/L		34.5					52.0						60.1			
Se-T	mg/L		<0.00010					<0.00010						<0.00010			
Si-T	mg/L		2.60					2.21						2.52			
Ag-T	mg/L	0.0001	<0.000020					<0.000020						<0.000020			
Na-T	mg/L		10.4					14.8						16.5			
Sr-T	mg/L		0.255					0.358						0.441			
Zn-T	mg/L	0.033	<0.0050					<0.0050						<0.0050			
Al-D	mg/L		0.035					0.0205						0.0234			
As-D	mg/L		<0.00050					0.00041						0.00046			
Ba-D	mg/L		0.0121					0.0210						0.0201			
B-D	mg/L		<0.25					0.156						0.158			
Be-D	mg/L		<0.00050					<0.00010						<0.00010			
Cd-D	mg/L	0.00017	<0.000050					<0.000010						<0.000010			
Ca-D	mg/L		44.3					60.4						77.5			
Cr-D	mg/L		<0.0050					<0.0010						<0.0010			
Co-D	mg/L		<0.0010					<0.00020						<0.00020			
Cu-D	mg/L		<0.0010					0.00048						0.00047			
Hard-D	mg/L		132					184						233			
Fe-D	mg/L	0.35	0.117					0.182						0.151			
Pb-D	mg/L		<0.0010					<0.00020						<0.00020			
Mg-D	mg/L		5.24					8.11						9.66			
Mn-D	mg/L		0.0114					0.0300						0.0241			
Mo-D	mg/L		<0.0050					<0.0010						<0.0010			
Ni-D	mg/L		<0.0050					<0.0010						<0.0010			
K-D	mg/L		0.47					0.677						0.658			
S-D	mg/L		31					56.8						70.8			
Se-D	mg/L		<0.00050					<0.00010						<0.00010			
Si-D	mg/L		2.47					2.58						2.86			
Na-D	mg/L		12.0					16.2						19.9			
Sr-D	mg/L		0.256					0.398						0.540			
Zn-D	mg/L	0.033	<0.025					<0.0050						<0.0050			

Table 21 Seep into Long Lake 1 Page(s)

EMS ID	E292131		Stn Std		Max-WQG
Site Description	Seep into Long Lake				
Site Name	LLS	Std Val			
Date		Max	02-04-2024	06-05-2024	29-05-2024
SG	m		0.009	0.009	Dry
pH-F	pH Units		7.47	Not reaching the lake. Water level to low to collect a sample.	
Cond-F	uS/cm		1525		
SO4-D	mg/L		610		
TSS	mg/L		2.8		
Alk-T	mg/L		210		
Acidity83	mg/L		3.1		
Al-T	mg/L	0.130	0.0203		
As-T	mg/L		0.00170		
Ba-T	mg/L		0.0188		
B-T	mg/L		0.456		
Cd-T	mg/L		0.000011		
Ca-T	mg/L		206		
Cr-T	mg/L		<0.0010		
Co-T	mg/L	0.11	0.00079		
Cu-T	mg/L		0.00096		
Hard-T	mg/L		597		
Fe-T	mg/L	1.0	1.22		
Pb-T	mg/L	0.0176	<0.00020		
Mg-T	mg/L		20.1		
Mn-T	mg/L	0.8706	0.194		
Mo-T	mg/L	46.0	<0.0010		
Ni-T	mg/L		0.0020		
K-T	mg/L		2.17		
S-T	mg/L		211		
Se-T	mg/L		<0.00010		
Si-T	mg/L		2.38		
Ag-T	mg/L	0.0001	<0.000020		
Na-T	mg/L		66.2		
Sr-T	mg/L		1.94		
Zn-T	mg/L	0.033	<0.0050		
Al-D	mg/L		<0.015		
As-D	mg/L		0.00058		
Ba-D	mg/L		0.0190		
B-D	mg/L		0.47		
Be-D	mg/L		<0.00050		
Cd-D	mg/L	0.00017	<0.000050		
Ca-D	mg/L		235		
Cr-D	mg/L		<0.0050		
Co-D	mg/L		<0.0010		
Cu-D	mg/L	0.0043	<0.0010		
Hard-D	mg/L		674		
Fe-D	mg/L	0.35	0.183		
Pb-D	mg/L		<0.0010		
Mg-D	mg/L		21.1		
Mn-D	mg/L		0.207		
Mo-D	mg/L		<0.0050		
Ni-D	mg/L		<0.0050		
K-D	mg/L		2.23		
S-D	mg/L		196		
Se-D	mg/L		<0.00050		
Si-D	mg/L		2.20		
Na-D	mg/L		73.0		
Sr-D	mg/L		1.85		
Zn-D	mg/L	0.033	<0.025		

The Seep was extremley low flow in April and not reaching the lake. Sample was collected in April but not in May or June.

Table 22 Long Lake Middle Seep 1 Page(s)

EMS ID	E292131	Max-WQG	
Site Description		Long Lake Middle Seep	
Site Name	LLSM	Std Val	
Date		Max	02-04-2024
Wlevel	m		0.06
pH-F	pH Units		7.5
Cond-F	uS/cm		1145
SO4-D	mg/L		410
TSS	mg/L		1.2
Alk-T	mg/L		170
Acidity83	mg/L		<1.0
Al-T	mg/L	0.150	0.0057
As-T	mg/L		0.00019
Ba-T	mg/L		0.0171
B-T	mg/L		0.332
Cd-T	mg/L		<0.000010
Ca-T	mg/L		149
Cr-T	mg/L		<0.0010
Co-T	mg/L	0.11	<0.00020
Cu-T	mg/L		<0.00050
Hard-T	mg/L		434
Fe-T	mg/L	1.0	0.073
Pb-T	mg/L	0.0176	<0.00020
Mg-T	mg/L		15.1
Mn-T	mg/L	0.8706	0.0315
Mo-T	mg/L	46.0	<0.0010
Ni-T	mg/L		<0.0010
K-T	mg/L		1.74
S-T	mg/L		139
Se-T	mg/L		<0.00010
Si-T	mg/L		2.30
Ag-T	mg/L	0.0001	<0.000020
Na-T	mg/L		48.7
Sr-T	mg/L		1.33
Zn-T	mg/L	0.033	<0.0050
Al-D	mg/L		<0.015
As-D	mg/L		<0.00050
Ba-D	mg/L		0.0187
B-D	mg/L		0.36
Be-D	mg/L		<0.00050
Cd-D	mg/L	0.00017	<0.000050
Ca-D	mg/L		169
Cr-D	mg/L		<0.0050
Co-D	mg/L		<0.0010
Cu-D	mg/L	0.0043	<0.0010
Hard-D	mg/L		487
Fe-D	mg/L	0.35	0.062
Pb-D	mg/L		<0.0010
Mg-D	mg/L		16.0
Mn-D	mg/L		0.0320
Mo-D	mg/L		<0.0050
Ni-D	mg/L		<0.0050
K-D	mg/L		1.87
S-D	mg/L		138
Se-D	mg/L		<0.00050
Si-D	mg/L		2.22
Na-D	mg/L		53.2
Sr-D	mg/L		1.31
Zn-D	mg/L	0.033	<0.025

Notes: LLSM water low flow and was not reaching the H-Flume or lake by May.

Table 23 Authorised Discharge Location for 7S South Mine Water 1 Page(s)

EMS ID	E292069	PL-7S	
Site Description	Authorised Discharge Location for 7S South Mine Water		
Site Name	7SSD	Std Val	
Date		Max	02-04-2024
pH-F	pH Units	6.00 - 8.00	8.33
Cond-F	uS/cm		203
SO4-D	mg/L	500	5.3
TSS	mg/L	25	1.6
Alk-T	mg/L		91
Acidity83	mg/L		<1.0
DOC	mg/L		1.8
Al-T	mg/L		0.0287
As-T	mg/L		0.00058
Ba-T	mg/L		0.0041
B-T	mg/L		<0.050
Cd-T	mg/L		<0.000010
Ca-T	mg/L		23.9
Cr-T	mg/L		<0.0010
Co-T	mg/L		<0.00020
Cu-T	mg/L		0.00058
Hard-T	mg/L		83.2
Fe-T	mg/L		0.071
Pb-T	mg/L		<0.00020
Mg-T	mg/L		5.70
Mn-T	mg/L		0.0604
Mo-T	mg/L		<0.0010
Ni-T	mg/L		<0.0010
K-T	mg/L		0.159
S-T	mg/L		<3.0
Se-T	mg/L		<0.00010
Si-T	mg/L		5.02
Ag-T	mg/L		<0.000020
Na-T	mg/L		2.66
Sr-T	mg/L		0.0841
Zn-T	mg/L		<0.0050
Al-D	mg/L	0.1	<0.015
As-D	mg/L		0.00053
Ba-D	mg/L		<0.0050
B-D	mg/L		<0.25
Be-D	mg/L		<0.00050
Cd-D	mg/L	0.000045	<0.000050
Ca-D	mg/L		26.0
Cr-D	mg/L		<0.0050
Co-D	mg/L		<0.0010
Cu-D	mg/L	0.014	<0.0010
Hard-D	mg/L		88.7
Fe-D	mg/L	0.35	<0.025
Pb-D	mg/L		<0.0010
Mg-D	mg/L		5.80
Mn-D	mg/L		0.0231
Mo-D	mg/L		<0.0050
Ni-D	mg/L		<0.0050
K-D	mg/L		<0.25
S-D	mg/L		<15
Se-D	mg/L	0.016	<0.00050
Si-D	mg/L		4.56
Na-D	mg/L		3.03
Sr-D	mg/L		0.0827
Zn-D	mg/L		<0.025

Table 24 7 South Portal Sump 1 Page(s)

EMS ID	E292110			
Site Description	7 South Portal Sump			
Site Name	7SPS			
Date		02-04-2024	06-05-2024	03-06-2024
pH-F	pH Units	6.88	6.65	7.31
Cond-F	uS/cm	554	691	650
SO4-D	mg/L	200	240	220
TSS	mg/L	11	8.0	
Alk-T	mg/L	64	110	120
Acidity83	mg/L	2.5	4.8	2.0
Al-T	mg/L	0.157	0.0700	0.0557
As-T	mg/L	0.00137	0.00124	0.00141
Ba-T	mg/L	0.0115	0.0137	0.0152
B-T	mg/L	0.072	0.108	0.072
Cd-T	mg/L	0.000025	0.000014	<0.000010
Ca-T	mg/L	68.1	88.6	83.5
Cr-T	mg/L	<0.0010	<0.0010	<0.0010
Co-T	mg/L	0.00420	0.00251	0.00121
Cu-T	mg/L	0.00305	0.00112	0.00108
Hard-T	mg/L	240	313	283
Fe-T	mg/L	4.82	4.03	2.63
Pb-T	mg/L	<0.00020	<0.00020	<0.00020
Mg-T	mg/L	17.0	22.2	18.2
Mn-T	mg/L	0.199	0.178	0.0945
Mo-T	mg/L	<0.0010	<0.0010	<0.0010
Ni-T	mg/L	0.0088	0.0055	0.0031
K-T	mg/L	0.664	0.697	0.713
S-T	mg/L	64.7	78.8	66.4
Se-T	mg/L	<0.00010	<0.00010	<0.00010
Si-T	mg/L	5.10	4.85	4.26
Ag-T	mg/L	<0.000020	<0.000020	<0.000020
Na-T	mg/L	4.84	8.41	7.70
Sr-T	mg/L	0.251	0.344	0.325
Zn-T	mg/L	0.0166	0.0106	<0.0050
Al-D	mg/L	<0.015	<0.0030	0.0043
As-D	mg/L	0.00054	0.00045	0.00048
Ba-D	mg/L	0.0140	0.0135	0.0171
B-D	mg/L	<0.25	0.104	0.097
Be-D	mg/L	<0.00050	<0.00010	<0.00010
Cd-D	mg/L	<0.000050	0.000010	<0.000010
Ca-D	mg/L	73.7	90.5	97.0
Cr-D	mg/L	<0.0050	<0.0010	<0.0010
Co-D	mg/L	0.0044	0.00258	0.00132
Cu-D	mg/L	0.0013	0.00061	0.00074
Hard-D	mg/L	253	322	331
Fe-D	mg/L	2.46	0.569	0.119
Pb-D	mg/L	<0.0010	<0.00020	<0.00020
Mg-D	mg/L	16.9	23.3	21.7
Mn-D	mg/L	0.192	0.186	0.112
Mo-D	mg/L	<0.0050	<0.0010	<0.0010
Ni-D	mg/L	0.0087	0.0057	0.0035
K-D	mg/L	0.66	0.780	0.824
S-D	mg/L	59	82.8	76.3
Se-D	mg/L	<0.00050	<0.00010	<0.00010
Si-D	mg/L	4.60	4.91	4.46
Na-D	mg/L	5.26	8.56	9.07
Sr-D	mg/L	0.239	0.359	0.397
Zn-D	mg/L	<0.025	0.0075	<0.0050

Table 25 Road Side Crossing Bridge on Stream 1 above the Lower Wetland 1 Page(s)

EMS ID	E292109	Max-WQG			
Site Description	Road Side Crossing Bridge on Stream 1 above the Lower Wetland				
Site Name	7S	Std Val			
Date		Max	02-04-2024	06-05-2024	03-06-2024
SG	m		0.201	0.168	1.75
pH-F	pH Units		7.36	6.57	6.74
Cond-F	uS/cm		38.5	50.4	54.8
SO4-D	mg/L		1.7	2.7	2.5
TSS	mg/L		<1.0	<1.0	<1.0
Alk-T	mg/L		14	22	23
Acidity83	mg/L		<1.0	1.4	1.1
DOC	mg/L		2.3	1.5	1.3
Al-T	mg/L		0.0246	0.0158	0.0156
Al-T (Chronic WQG)	mg-L		0.11	0.032	0.037
As-T	mg/L		<0.00010	<0.00010	<0.00010
Ba-T	mg/L		0.0014	0.0016	0.0016
B-T	mg/L		<0.050	<0.050	<0.050
Cd-T	mg/L		<0.000010	<0.000010	<0.000010
Ca-T	mg/L		3.93	4.77	5.17
Cr-T	mg/L		<0.0010	<0.0010	<0.0010
Co-T	mg/L	0.11	<0.00020	<0.00020	<0.00020
Cu-T	mg/L		<0.00050	<0.00050	<0.00050
Hard-T	mg/L		13.7	17.0	17.7
Fe-T	mg/L	1.0	<0.010	<0.010	<0.010
Pb-T	mg/L	0.0176	<0.00020	<0.00020	<0.00020
Mg-T	mg/L		0.937	1.23	1.15
Mn-T	mg/L	0.8706	<0.0010	<0.0010	<0.0010
Mo-T	mg/L	46.0	<0.0010	<0.0010	<0.0010
Ni-T	mg/L		<0.0010	<0.0010	<0.0010
K-T	mg/L		0.073	0.077	0.069
S-T	mg/L		<3.0	<3.0	<3.0
Se-T	mg/L		<0.00010	<0.00010	<0.00010
Si-T	mg/L		3.78	3.99	4.39
Ag-T	mg/L	0.0001	<0.000020	<0.000020	<0.000020
Na-T	mg/L		1.42	1.63	1.70
Sr-T	mg/L		0.0154	0.0197	0.0207
Zn-T	mg/L	0.033	<0.0050	<0.0050	<0.0050
Al-D	mg/L		0.023	0.0174	0.0170
As-D	mg/L		<0.00050	<0.00010	<0.00010
Ba-D	mg/L		<0.0050	0.0018	0.0019
B-D	mg/L		<0.25	<0.050	<0.050
Be-D	mg/L		<0.00050	<0.00010	<0.00010
Cd-D	mg/L	0.00017	<0.000050	<0.000010	<0.000010
Ca-D	mg/L		4.75	5.39	5.95
Cr-D	mg/L		<0.0050	<0.0010	<0.0010
Co-D	mg/L		<0.0010	<0.00020	<0.00020
Cu-D	mg/L		<0.0010	0.00023	0.00020
Cu-D (Acute-WQG)	mg/L		0.0026	0.0004	0.0006
Hard-D	mg/L		15.7	18.9	20.5
Fe-D	mg/L	0.35	<0.025	<0.0050	<0.0050
Pb-D	mg/L		<0.0010	<0.00020	<0.00020
Mg-D	mg/L		0.93	1.32	1.36
Mn-D	mg/L		<0.0050	<0.0010	<0.0010
Mo-D	mg/L		<0.0050	<0.0010	<0.0010
Ni-D	mg/L		<0.0050	<0.0010	<0.0010
K-D	mg/L		<0.25	0.083	0.080
S-D	mg/L		<15	<3.0	<3.0
Se-D	mg/L		<0.00050	<0.00010	<0.00010
Si-D	mg/L		3.69	4.59	4.76
Na-D	mg/L		1.65	1.77	1.96
Sr-D	mg/L		0.0171	0.0218	0.0256
Zn-D	mg/L	0.033	<0.025	<0.0050	<0.0050

Stream was dry May through to late October.

Table 26 Discharge From Settling Pond #4 1 Page(s)

EMS ID	E207409					
Discharge From Settling Pond #4 (SP4/WD)						
Date	April Max. (m^3/s)	April Daily (m^3/s)	May Max. (m^3/s)	May Daily (m^3/s)	June Max. (m^3/s)	June Daily (m^3/s)
1	0.1310	0.1230	0.1300	0.0900	0.0880	0.0810
2	0.1310	0.1230	0.0860	0.0720	0.0870	0.0830
3	0.1310	0.1140	0.0930	0.0760	0.1040	0.0900
4	0.1230	0.1050	0.1000	0.0800	0.1170	0.0950
5	0.1160	0.0940	0.1120	0.0980	0.1000	0.0870
6	0.1200	0.0980	0.1210	0.0980	0.0970	0.0850
7	0.1170	0.1000	0.1150	0.0830	0.0930	0.0810
8	0.1090	0.0950	0.0930	0.0780	0.0980	0.0840
9	0.1150	0.1000	0.1100	0.0920	0.0950	0.0850
10	0.1010	0.0870	0.1170	0.0950	0.1000	0.0840
11	0.1030	0.0810	0.1170	0.0950	0.1030	0.0870
12	0.0690	0.0620	0.1100	0.0920	0.0950	0.0830
13	0.0690	0.0560	0.1140	0.0990	0.1080	0.0860
14	0.0690	0.0550	0.1010	0.0930	0.1090	0.0940
15	0.0690	0.0540	0.1150	0.0970	0.1070	0.0930
16	0.0870	0.0690	0.1070	0.0790	0.1010	0.0890
17	0.0900	0.0790	**PNC**	**PNC**	0.1270	0.1000
18	0.0880	0.0780	**PNC**	**PNC**	0.1000	0.0850
19	0.0890	0.0770	**PNC**	**PNC**	0.1090	0.0890
20	0.1250	0.0910	**PNC**	**PNC**	0.1200	0.0920
21	0.1310	0.1180	0.0950	0.0950	0.0960	0.0780
22	0.1300	0.1180	**PNC**	**PNC**	0.0740	0.0660
23	0.1300	0.1150	**PNC**	**PNC**	0.0720	0.0660
24	0.1300	0.1160	**PNC**	**PNC**	0.0740	0.0600
25	0.1300	0.1210	**PNC**	**PNC**	0.0740	0.0570
26	0.1400	0.1320	**PNC**	**PNC**	0.0710	0.0570
27	0.1380	0.1220	0.1310	0.1310	0.0780	0.0650
28	0.1390	0.1340	**PNC**	**PNC**	0.0620	0.0560
29	0.1310	0.1130	0.1640	0.1640	0.0640	0.0600
30	0.1080	0.0810	0.1120	0.1100	0.0630	0.0550
31			0.0880	0.0800		
Monthly Max	**0.1400**		**0.1640**		**0.1270**	
Monthly Avg		**0.0970**		**0.0951**		**0.0791**
TSS is required weekly when max daily flow > 0.054 m3/s						
NF= No Flow	**PNC= Permit Non-compliance**			All flow data is subject to review		

TSS is required weekly when daily Max flow is >0.054 m3/s.
All flow is subject to review.
No Flow =NF
Permit Non-compliance = PNC

Table 27 Discharge From Settling Pond #1 1 Page(s)

EMS ID	E218582					
Discharge From Settling Pond #1 (SP1/SPD)						
Date	**April** Max. (m^3/s)	**April** Daily (m^3/s)	**May** Max. (m^3/s)	**May** Daily (m^3/s)	**June** Max. (m^3/s)	**June** Daily (m^3/s)
1	**PNC**	**PNC**	0.0341	0.0160	0.0443	0.0250
2	0.1970	0.0250	0.0341	0.0091	0.0443	0.0160
3	**PNC**	**PNC**	0.0250	0.0091	0.0443	0.0091
4	0.0160	0.0091	0.0160	0.0091	0.0341	0.0160
5	**PNC**	**PNC**	0.0443	0.0250	0.0250	0.0091
6	**PNC**	**PNC**	0.0443	0.0091	0.0341	0.0160
7	**PNC**	**PNC**	0.0534	0.0250	0.0250	0.0091
8	**PNC**	**PNC**	0.0250	0.0091	0.0639	0.0091
9	0.0534	0.0534	0.0160	0.0032	0.0341	0.0091
10	0.0160	0.0000	0.0160	0.0032	0.0341	0.0091
11	0.1970	0.1970	0.0160	0.0032	0.0341	0.0091
12	**PNC**	**PNC**	0.0091	0.0032	0.0341	0.0160
13	**PNC**	**PNC**	0.0091	0.0032	0.0160	0.0032
14	0.1970	**PNC**	0.0091	0.0032	0.0443	0.0160
15	0.0091	0.0032	0.0091	0.0032	0.0341	0.0091
16	0.1970	0.1970	0.0091	0.0032	0.0250	0.0091
17	0.1970	0.1970	0.0091	0.0000	0.0341	0.0091
18	0.1970	0.1279	0.0091	0.0032	0.0341	0.0091
19	0.0250	**PNC**	0.0091	0.0000	0.0250	0.0091
20	0.0443	**PNC**	0.0091	0.0000	0.0250	0.0091
21	0.0639	**PNC**	0.0160	0.0032	0.0250	0.0032
22	0.0764	**PNC**	0.0091	0.0000	0.0250	0.0091
23	0.1970	0.1970	0.0091	0.0000	0.0160	0.0032
24	0.1970	0.1970	0.0160	0.0091	0.0250	0.0032
25	0.1970	0.0443	0.0341	0.0091	0.0341	0.0160
26	0.1382	0.0639	0.0443	0.0160	0.0764	0.0250
27	0.1522	**PNC**	0.0160	0.0091	0.0877	0.0639
28	0.1667	**PNC**	0.1970	0.0032	0.0877	0.0443
29	0.1970	**PNC**	0.0443	0.0160	0.0989	0.0443
30	0.0534	0.0341	0.1970	0.0250	0.0989	0.0341
31			0.0443	0.0160		
Monthly Max	**0.1970**		**0.1970**		**0.0989**	
Monthly Avg		**0.0961**		**0.0080**		**0.0157**

PNC = Permit Non-compliance

TSS is required **weekly** when max daily flow > $0.046 m^3/s$

NF= No Flow All flow data is subject to review

TSS is required weekly when daily Max flow is > 0.046 m3/s.
All flow is subject to review.
No Flow =NF
Permit Non-compliance = PNC

Table 28 Discharge From 7 South Surface 1 Page(s)

EMS ID E292069			
Discharge From 7 South Surface Decant Pond (7SSD)			
	April	May	June
		Daily Average L/S	
Date			
1	NF	NF	NF
2	NF	NF	NF
3	NF	NF	NF
4	NF	NF	NF
5	NF	NF	NF
6	NF	NF	NF
7	NF	NF	NF
8	NF	NF	NF
9	NF	NF	NF
10	NF	NF	NF
11	NF	NF	NF
12	NF	NF	NF
13	NF	NF	NF
14	NF	NF	NF
15	NF	NF	NF
16	NF	NF	NF
17	NF	NF	NF
18	NF	NF	NF
19	NF	NF	NF
20	NF	NF	NF
21	NF	NF	NF
22	NF	NF	NF
23	NF	NF	NF
24	NF	NF	NF
25	NF	NF	NF
26	NF	NF	NF
27	NF	NF	NF
28	NF	NF	NF
29	NF	NF	NF
30	NF	NF	NF
31	NF	NF	NF
Monthly Avg	0.000	0.000	0.000
Annual Avg	0.000		
Cummulative Daily Totalizer Value			
For Maximum Decant Flow (5.00 L/s)			
No Flow = NF			

Table 29 2S Inflow and Outflow 1 Page(s)

EMS ID: E292127 2-South Pit Inflow				EMS ID: E292127 2-South Pit Outflow			
2S Inflow				2S Outflow Culvert into 3S Pit			
Date	April Q (L/s)	May Q (L/s)	June Q (L/s)	Date	April Q (L/s)	May Q (L/s)	June Q (L/s)
1	12.895	13.726	4.95	1	6.374	3.846	10.762
2	14.952	13.275	2.43	2	6.538	4.274	10.629
3	17.281	10.881	2.39	3	6.605	3.854	10.834
4	16.758	10.805	1.84	4	6.211	3.987	9.842
5	17.178	10.488	2.58	5	5.820	3.990	9.739
6	17.321	10.144	2.43	6	5.601	4.063	10.184
7	16.506	9.588	2.22	7	5.986	3.963	9.025
8	16.164	9.571	2.21	8	5.734	3.671	8.387
9	15.266	9.484	2.11	9	5.879	3.557	8.042
10	14.061	9.465	2.10	10	5.311	3.463	7.890
11	14.742	9.643	2.25	11	5.311	3.489	9.615
12	14.814	9.786	2.03	12	5.387	3.493	8.476
13	14.356	9.958	1.95	13	4.878	3.774	7.729
14	14.058	9.988	2.22	14	4.584	3.516	8.384
15	11.960	10.029	2.17	15	4.741	3.645	9.703
16	9.695	10.232	2.08	16	4.708	3.530	9.116
17	9.493	10.221	0.76	17	4.375	3.665	8.129
18	7.331	10.807	0.07	18	4.249	3.585	7.739
19	8.620	10.688	0.06	19	4.191	3.633	7.641
20	8.675	10.323	0.08	20	4.255	3.392	7.104
21	8.654	12.600	0.08	21	4.399	3.787	6.819
22	8.457	11.725	0.08	22	4.021	4.150	6.901
23	8.765	11.124	0.08	23	4.072	3.416	7.170
24	8.896	14.978	0.06	24	4.153	3.997	7.242
25	8.976	14.850	0.05	25	4.408	4.456	7.035
26	10.920	14.663	1.11	26	4.671	4.067	8.226
27	10.438	14.452	3.01	27	4.391	4.190	17.025
28	10.305	13.867	1.85	28	4.339	4.065	10.640
29	8.011	13.975	1.37	29	3.949	7.500	5.388
30	13.042	12.980	0.99	30	4.036	10.603	4.778
31		12.43		31		10.249	

Table 30 Flow Requirements 7 Page(s)

Water Level		
EMS ID:	**E292131**	
Site	**LLS**	
		Water Level (m)
Weeks	**Level (m)**	**Weeks**
1	0.009	32
2	Dry	33
3	Dry	34
4	Dry	35
5	Dry	36
6	Dry	37
7	Dry	38
8	Dry	39
9	Dry	40
10	Dry	41
11	Dry	42
12	Dry	43
13	Dry	44
14		45
15		46
16		47
17		48
18		49
19		50
20		51
21		52
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		
Notes: No flow = NF. Flow rates were extremly low thoughout 2023-24, mostly not reaching the lake.		

Table 30 Flow Requirements 7 Page(s)

Weekly Flow Requirements (L/s)
EMS ID: E292131
Site LLSM
Flow (L/s)

Date	Apr	May	June
1	1.376	**NF**	**NF**
2	1.946	**NF**	**NF**
3	1.946	**NF**	**NF**
4	1.946	**NF**	**NF**
5	1.376	**NF**	**NF**
6	1.376	**NF**	**NF**
7	1.376	**NF**	**NF**
8	0.909	**NF**	**NF**
9	0.909	**NF**	**NF**
10	0.539	**NF**	**NF**
11	0.263	**NF**	**NF**
12	0.078	**NF**	**NF**
13	**NF**	**NF**	**NF**
14	**NF**	**NF**	**NF**
15	**NF**	**NF**	**NF**
16	**NF**	**NF**	**NF**
17	**NF**	**NF**	**NF**
18	**NF**	**NF**	**NF**
19	**NF**	**NF**	**NF**
20	**NF**	**NF**	**NF**
21	**NF**	**NF**	**NF**
22	**NF**	**NF**	**NF**
23	**NF**	**NF**	**NF**
24	**NF**	**NF**	**NF**
25	**NF**	**NF**	**NF**
26	**NF**	**NF**	**NF**
27	**NF**	**NF**	**NF**
28	**NF**	**NF**	**NF**
29	**NF**	**NF**	**NF**
30	**NF**	**NF**	**NF**
31		**NF**	**NF**

Notes: **No flow = NF**

Table 30 Flow Requirements 7 Page(s)

Continuous Flow Requirements (L/s)
EMS ID: E292109
Site 7S

Flow (L/S)	**Estimated Flow**		
Date	**Apr**	**May**	**June**
1	2.43	0.44	0.1969
2	1.87	0.37	0.2120
3	1.58	0.34	0.2154
4	1.26	0.24	0.1093
5	0.97	0.24	0.2554
6	0.85	0.26	0.2245
7	0.84	0.26	0.1789
8	0.74	0.23	0.1160
9	0.66	0.18	0.0826
10	0.71	0.15	0.0645
11	0.71	0.11	0.1171
12	0.67	0.08	0.1186
13	0.59	0.05	0.0687
14	0.54	0.03	0.0919
15	0.50	0.02	0.1776
16	0.52	0.02	0.1736
17	0.50	0.01	0.1070
18	0.23	0.01	0.0544
19	0.37	0.01	0.0241
20	0.34	0.00	0.0122
21	0.30	0.06	0.0055
22	0.32	0.20	0.0017
23	0.25	0.17	0.0004
24	0.24	0.21	0.0001
25	0.28	0.26	0.0001
26	0.47	0.27	0.0831
27	0.59	0.25	2.3977
28	0.53	0.2235	1.0077
29	0.35	0.2439	0.6362
30	0.45	0.2394	0.4981
31		0.2084	

Notes: **No flow = NF**

Table 30 Flow Requirements 7 Page(s)

5 in 30 Flow Requirements
EMS ID: 126402
Site WA
Flow (m^3/s)

Date	Apr	May	June
1	2.30	1.81	1.00
2	2.30	1.41	1.00
3	2.30	1.34	1.02
4	2.30	1.15	1.04
5	2.30	1.15	1.03
6	2.29	1.15	1.01
7	2.29	1.15	1.04
8	2.29	1.15	1.10
9	2.30	1.10	1.10
10	2.30	1.02	1.09
11	2.31	1.02	1.30
12	2.33	1.02	1.29
13	2.33	1.02	1.28
14	2.33	1.02	1.27
15	2.33	1.02	1.25
16	2.33	1.02	1.25
17	2.34	1.02	1.24
18	2.34	1.03	1.24
19	2.33	1.02	1.18
20	2.35	1.02	1.10
21	2.35	1.06	1.09
22	2.36	1.06	1.08
23	2.35	1.05	1.08
24	2.36	1.08	1.08
25	2.36	1.08	1.07
26	2.36	1.08	1.11
27	2.36	1.07	1.13
28	2.36	1.00	1.13
29	2.36	1.01	1.13
30	2.37	1.01	1.12
31		1.01	

Table 30 Flow Requirements 7 Page(s)

5 in 30 Flow Requirements (Level)
EMS ID: 900504
Site WB
Average Level (m)

Date	Apr	May	June
1	0.593	0.563	0.472
2	0.593	0.532	0.476
3	0.589	0.520	0.466
4	0.587	0.501	0.458
5	0.579	0.491	0.471
6	0.574	0.484	0.474
7	0.577	0.481	0.473
8	0.577	0.482	0.470
9	0.571	0.483	0.471
10	0.580	0.477	0.471
11	0.579	0.468	0.478
12	0.574	0.463	0.485
13	0.572	0.460	0.487
14	0.570	0.461	0.488
15	0.567	0.463	0.487
16	0.567	0.459	0.488
17	0.569	0.456	0.482
18	0.560	0.458	0.482
19	0.567	0.455	0.480
20	0.564	0.456	0.476
21	0.561	0.468	0.473
22	0.569	0.464	0.468
23	0.564	0.465	0.461
24	0.565	0.472	0.461
25	0.564	0.472	0.462
26	0.570	0.473	0.478
27	0.573	0.478	0.504
28	0.569	0.475	0.505
29	0.554	0.471	0.502
30	0.568	0.473	0.499
31		0.474	

Notes: Flow curve is being developed.

Table 30 Flow Requirements 7 Page(s)

5 in 30 Flow Requirements
EMS ID: E219412
Site LLO
Average Level (m)

Date	Apr	May	June
1	0.4282	0.2957	0.2813
2	0.4162	0.2996	0.2833
3	0.4013	0.3007	0.2727
4	0.3895	0.2924	0.2603
5	0.3715	0.2850	0.2716
6	0.3564	0.2777	0.2731
7	0.3536	0.2746	0.2708
8	0.3568	0.2757	0.2601
9	0.3552	0.2715	0.2516
10	0.3591	0.2627	0.2478
11	0.3525	0.2514	0.2477
12	0.3414	0.2405	0.2461
13	0.3326	0.2300	0.2426
14	0.3229	0.2256	0.2438
15	0.3134	0.2241	0.2449
16	0.3095	0.2148	0.2441
17	0.3092	0.2063	0.2335
18	0.2944	0.2088	0.2260
19	0.2938	0.2055	0.2195
20	0.2827	0.2037	0.2144
21	0.2743	0.2210	0.2100
22	0.2759	0.2317	0.2029
23	0.2722	0.2378	0.1934
24	0.2717	0.2540	0.1904
25	0.2693	0.2709	0.1881
26	0.2880	0.2812	0.2296
27	0.3009	0.2892	0.3564
28	0.2977	0.2892	0.3899
29	0.2739	0.2845	0.3791
30	0.2941	0.2854	0.3631
31		0.2850	

Notes: Flow curve is being developed.

Table 30 Flow Requirements 7 Page(s)

5 in 30 Flow Requirements

EMS ID: E297232

Site IR8

Average Level (m)

Date	Apr	May	June
1	1.14	1.01	0.97
2	1.14	1.01	0.98
3	1.13	1.01	0.97
4	1.09	1.02	0.96
5	1.05	1.04	0.98
6	1.03	1.02	0.98
7	1.02	1.00	0.96
8	1.02	0.99	0.94
9	1.03	1.02	0.93
10	1.02	1.05	0.92
11	1.02	1.05	0.92
12	1.03	1.03	0.92
13	1.02	0.99	0.91
14	1.02	0.98	0.90
15	1.02	0.99	0.89
16	1.01	0.98	0.89
17	0.99	0.96	0.87
18	0.97	0.94	0.87
19	0.97	0.92	0.86
20	0.97	0.91	0.86
21	0.96	0.95	0.85
22	0.97	1.01	0.84
23	0.96	0.97	0.84
24	0.98	1.00	0.83
25	1.02	1.09	0.83
26	1.10	1.04	0.91
27	1.14	1.03	1.08
28	1.09	1.01	1.07
29	1.03	1.00	1.05
30	1.03	0.99	1.03
31		0.98	

Notes: Flow curve is being developed.

Table 21 Daily Precipitation (mm) - 1 Page(s)

Daily Precipitation (mm)			
DATE	APRIL	MAY	JUNE
1	0.0	9.1	1.1
2	3.5	0.0	3.4
3	0.0	0.0	0.0
4	0.0	0.0	4.7
5	0.0	1.3	4.7
6	0.8	1.7	0.0
7	0.0	0.1	0.0
8	7.2	0.0	0.0
9	0.1	0.0	0.0
10	0.0	0.0	8.8
11	3.9	0.0	1.1
12	0.0	0.0	0.0
13	0.0	0.0	0.0
14	0.0	0.0	7.9
15	0.8	0.0	1.7
16	0.1	0.0	0.0
17	0.0	0.0	0.0
18	0.0	5.3	0.0
19	0.0	0.0	0.0
20	0.0	0.3	0.0
21	0.2	21.4	0.0
22	0.0	0.0	1.3
23	0.0	2.8	1.0
24	2.1	20.1	0.0
25	13.5	0.0	0.0
26	3.9	3.2	47.8
27	0.1	4.0	3.1
28	0.0	0.2	1.8
29	1.8	3.1	3.8
30	2.7	0.1	0.0
31		2.1	
Monthly Total (mm)	**40.70**	**74.80**	**92.20**
Quarterly Total (mm)	**207.70**		

Table 32 Groundwater Wells - Description 1 Page(s)

Area	Groundwater ID	In-situ / Ex-situ	Screened Interval	Comment
2-North	1 Mains 2-North (1M2N)	In-situ	No. 1 Seam	Flooded Underground Workings in 1-Mains Area, Dewatering well
	5 Mains#2 (5M#2)	In-situ	No. 1 Seam	Flooded Underground Workings in 5-Mains Area, Dewatering well
	3 Mains 2-North (3M2N)	In-situ	No. 1 Seam	Flooded Underground Workings in 3-Mains Area, Underground Pump System
	QU08-21GD	Ex-situ	No. 1 Seam	Down gradient of u/g tailings disposal, measure water quality and hydraulic gradients downstream of forjan fault
	QU08-21GS	Ex-situ	No. 4 Coal Seam and	
	QU10-10D	Ex-situ	No. 1 Seam / mudstone	Down gradient of u/g tailings disposal, measures water quality and hydraulic head downgradient of 2 North workings
	QU10-10S	Ex-situ	No. 4 Seam /	
	QU10-11S	Ex-situ	Fractured Sandstone	Measure water quality and hydraulic gradient in Forjan Fault
	QU10-11D	Ex-situ	No.1 Seam	Down gradient of u/g tailings disposal, measures water quality and hydraulic head down gradient t of 2 North workings
	QU10-13D	In-situ	Caved Zone	Down gradient of u/g tailings disposal, measures water quality and hydraulic head down gradient of 2 North workings
5-South Mine Void	5SMW	In-situ	Mine Pool (1 Seam)	Water pumped from 5-South Flooded Mine Pool into 3-Mains of 2-North Mine
	QU0516	In-situ	(1 Seam)	In a pillar of the flooded mine void
River Barrier Pillar (RBP)	QU11-05S	Ex-situ	Sandstone	Down gradient of u/g tailings disposal, measures water quality and hydraulic head, down gradient of 2-North workings
	QU11-05D	Ex-situ	Sandstone	Monitoring water quality and vertical gradients from of the RBP and 2-North mine.
	QU11-09S	Ex-situ	Sandstone	Monitoring water quality & upward vertical gradients of the RBP and 2-North workings. Mine pool – CCR backfill in River Barrier Pillar
	QU11-09M	In-situ	RBP Mine Pool	Monitoring water quality in the RBP and 2-North workings. Mine pool – CCR backfill in River Barrier Pillar.
2-North Plant Site	MW-00-1S	Ex-situ	Till	Shallow groundwater below coal pad (well collapsed)
	MW-00-1D	Ex-situ	1-Seam	Deeper groundwater below the coal pad (well collapsed)
	MW-00-6D	Ex-situ	Till	Deeper groundwater below the coal pad
	MW-00-6S	Ex-situ	Till	Shallow groundwater below coal pad
4-South	QU10-08D	Ex-situ	No. 3 Seam	4 South (just outside mine pool) up gradient of existing workings
	QU11-01	In-Situ	Foot print area of 4 South GOB	Assess 4 South Flooded Mine Void Water Chemistry
	QU10-09S	Ex-situ	Down gradient of existing workings	Access vertical gradients and water quality adjacent to Long Lake.
	QU10-09D	Ex-situ	Down gradient of existing workings	Access vertical gradients and water quality adjacent to Long Lake.
2-South & 3-South	MW002	Ex-situ	1 Seam	3S Pit Shallow Groundwater
	MW004	In-Situ	Mine Pool (1 Seam)	2-South Mine Pool Gob depillared area
	QU11-11 (INF)	In-Situ	Mine Pool (1 Seam)	2-South mine pool dewatering well for Passive Treatment System
7-South	1M7SA5	In-Situ	No. 4 Coal Seam	Underground sump collects water from 7SA5, 2Mains and 1Mains pumps to 5-South Mine
	2M7S	In-Situ	No. 4 Coal Seam	Flooded (PAG -CCR) 2-Mains area pumps intermittenly to 1M7SA5
	3M7S	In-Situ	No. 4 Coal Seam	3-Mains Area Underground
	QU08-10	Ex-situ	No. 4 Coal Seam	Downgradient of 7S - screened No. 3 Coal - Southern margin of workings
	QU08-13A	Ex-situ	No. 4 Coal Seam	Downgradient of the CCR backfill towards QR
	QU08-13B	Ex-situ	Till & SST contact	Downgradient of the CCR backfill towards QR
	QU14-10	In-Situ	Mine Void	Flooded PAG-CCR water cover in mine void
7- South Area 5	7SA5	In-Situ	Sump	Underground sump collects water in 7SA5, pumps it to 1Mains
	QU11-35	Ex-situ	Sandstone above No. 4 Seam	South end of 7SA5 footprint at 100280m N (mine grid)
242 AREA	QU11-36D	Ex-situ	Sandstone below No. 5 seam	Downgradient of 7SA5
	242MW	In-situ	No. 4 Seam	Flooded mine void

Table 33 Ex-situ and In-situ Groundwater 16 Page(s)

	Description	2 and 3 North Ex-Situ		
	Well ID	QU0821GS	QU0821GD	
	*Station Type	GW	GW	
	Surface Elevation (m ASL)	215	215	
H_2O Level (below top of casing) (m ASL)		215	215	
H_2O Level below top of casing (m)		At surface	At surface	
Date		5-Jun-24	5-Jun-24	
Parameter	Units	CSR-AW		
SO4-D	mg/L	1280	**<1.0**	**<10**
H2SEquiv	mg/L	0.02	0.117	0.0659
Cond-F	uS/cm		405.1	2479
pH-F	pH Units		8.12	7.56
Temp-F	C		10.9	9.6
DO-F	mg/L		0.25	0.4
ORP-F	mV		-86.7	-80.3
Turb	NTU		0.92	11
Alk-T	mg/L		190	200
Acidity83	mg/L		**<1.0**	2.5
N-D	mg/L		0.325	0.866
DOC	mg/L		1.5	**<0.50**
Hydrox	mg/L		**<1.0**	**<1.0**
Bicarb	mg/L		230	240
Carb	mg/L		1.8	**<1.0**
Cl-D	mg/L	1500	50	890
F-D	mg/L		1.7	1.1
Flu-CSR	mg/L		2.00	3.00
Br-D	mg/L		0.081	1.32
P-D	mg/L		0.075	0.059
Al-D	mg/L		**<0.0060**	**<0.015**
Ag-D	mg/L		**<0.000040**	**<0.00010**
Ag-CSR	mg/L		0.000500	0.0150
As-D	mg/L	0.05	0.207	0.222
Ba-D	mg/L	10	0.281	3.00
B-D	mg/L	12	1.94	3.34
Be-D	mg/L	0.053	**<0.00020**	**<0.00050**
Bi-D	mg/L		**<0.0020**	**<0.0050**

Notes:
Station Type: Mine Water (MW) and Groundwater (GW).
** Calculated Parameters
Bold Red results above CSR - AL
Bold indicates 1/2 detection limit was used.

Table 33 Ex-situ and In-situ Groundwater 16 Page(s)

	Description		2 and 3 North Ex-Situ	
	Well ID		QU0821GS	QU0821GD
	*Station Type		GW	GW
	Surface Elevation (m ASL)		215	215
H_2O Level (below top of casing) (m ASL)			215	215
H_2O Level below top of casing (m)			At surface	At surface
Date			5-Jun-24	5-Jun-24
Parameter	Units	CSR-AW		
Cd-D	mg/L		**<0.000020**	**<0.000050**
Cd-CSR	mg/L		0.000300	0.000600
Ca-D	mg/L		13.3	134
Cr-D	mg/L	0.01	**<0.0020**	**<0.0050**
Co-D	mg/L	0.009	**<0.00040**	**<0.0010**
Cu-D	mg/L		**<0.00040**	**<0.0010**
Cu-CSR	mg/L		0.0200	0.0900
Fe-D	mg/L		0.324	1.28
Hard-D	mg/L		47.9	405
Pb-D	mg/L		**<0.00040**	**<0.0010**
Pb-CSR	mg/L		0.0400	0.160
Mg-D	mg/L		3.55	17.1
Mn-D	mg/L		0.0278	0.0884
Na-D	mg/L		99.8	633
Mo-D	mg/L	10	**<0.0020**	**<0.0050**
Ni-D	mg/L		**<0.0020**	**<0.0050**
Ni-CSR	mg/L		0.250	1.50
K-D	mg/L		3.86	10.4
S-D	mg/L		**<6.0**	**<15**
Sb-D	mg/L	0.2	**<0.0010**	**<0.0025**
Se-D	mg/L	0.01	**<0.00020**	**<0.00050**
Si-D	mg/L		3.12	4.78
Sr-D	mg/L		0.413	2.76
Tl-D	mg/L	0.003	**<0.000020**	**<0.000050**
Ti-D	mg/L	1	**<0.010**	**<0.025**
U-D	mg/L	3	**<0.00020**	**<0.00050**
V-D	mg/L		**<0.010**	**<0.025**
Zn-D	mg/L		**<0.010**	**<0.025**
Zn-CSR	mg/L		0.075	2.400

Notes:
Station Type: Mine Water (MW) and Groundwater (GW).
** Calculated Parameters
Bold Red results above CSR - AL
Bold indicates 1/2 detection limit was used.

Table 33 Ex-situ and In-situ Groundwater 16 Page(s)

	Description		RBP Ex-Situ		
	Well ID		QU1105S	QU1105D	QU1109S
	*Station Type		GW	GW	GW
	Surface Elevation (m ASL)		229	229	227
H_2O Level (below top of casing) (m ASL)			207	211	223
H_2O Level below top of casing (m)			22	18	4
Date			15-May-24	15-May-24	9-Apr-24
Parameter	Units	CSR-AW			
SO4-D	mg/L	1280	54	210	70
H2SEquiv	mg/L	0.02	0.191	20.2	1.49
Cond-F	uS/cm		389.9	4800.6	721.8
pH-F	pH Units		6.92	7.69	7.84
Temp-F	C		9.924	10.287	8.151
DO-F	mg/L		-0.6	-0.56	-0.52
ORP-F	mV		-257.2	-356.1	-231
Turb	NTU		5.8	2.3	2.6
Alk-T	mg/L		150	410	320
Acidity83	mg/L		1.8	**<1.0**	**<1.0**
N-D	mg/L		0.132	0.759	0.274
DOC	mg/L		1.4	1.2	1.5
Hydrox	mg/L		**<1.0**	**<1.0**	**<1.0**
Bicarb	mg/L		190	410	390
Carb	mg/L		**<1.0**	45	**<1.0**
Cl-D	mg/L	1500	1.0	1300	7.0
F-D	mg/L		0.19	**<0.050**	0.50
Flu-CSR	mg/L		3.00	3.00	2.00
Br-D	mg/L		**<0.010**	2.21	0.015
P-D	mg/L		**<0.0030**	0.0037	0.044
Al-D	mg/L		**<0.0030**	**<0.015**	**<0.0030**
Ag-D	mg/L		**<0.000020**	**<0.00010**	**<0.000020**
Ag-CSR	mg/L		0.000500	0.0150	0.000500
As-D	mg/L	0.05	0.0573	0.00184	0.102
Ba-D	mg/L	10	0.0737	0.172	0.0400
B-D	mg/L	12	0.445	0.44	1.15
Be-D	mg/L	0.053	**<0.00010**	**<0.00050**	**<0.00010**
Bi-D	mg/L		**<0.0010**	**<0.0050**	**<0.0010**

Notes:
Station Type: Mine Water (MW) and Groundwater (GW).
** Calculated Parameters
Bold Red results above CSR - AL
Bold indicates 1/2 detection limit was used.

Table 33 Ex-situ and In-situ Groundwater 16 Page(s)

	Description		RBP Ex-Situ		
	Well ID		QU1105S	QU1105D	QU1109S
	*Station Type		GW	GW	GW
	Surface Elevation (m ASL)		229	229	227
H_2O Level (below top of casing) (m ASL)			207	211	223
H_2O Level below top of casing (m)			22	18	4
Date			15-May-24	15-May-24	9-Apr-24
Parameter	Units	CSR-AW			
Cd-D	mg/L		**<0.000010**	**<0.000050**	**<0.000010**
Cd-CSR	mg/L		0.000500	0.000600	0.000100
Ca-D	mg/L		30.3	142	7.19
Cr-D	mg/L	0.01	**<0.0010**	**<0.0050**	**<0.0010**
Co-D	mg/L	0.009	**<0.00020**	**<0.0010**	**<0.00020**
Cu-D	mg/L		**<0.00020**	**<0.0010**	**<0.00020**
Cu-CSR	mg/L		0.0400	0.0900	0.0200
Fe-D	mg/L		1.38	**<0.025**	0.0235
Hard-D	mg/L		99.1	376	25.0
Pb-D	mg/L		**<0.00020**	**<0.0010**	**<0.00020**
Pb-CSR	mg/L		0.0500	0.160	0.0400
Mg-D	mg/L		5.72	5.09	1.72
Mn-D	mg/L		0.121	0.0829	0.0166
Na-D	mg/L		48.3	906	175
Mo-D	mg/L	10	**<0.0010**	**<0.0050**	**<0.0010**
Ni-D	mg/L		**<0.0010**	**<0.0050**	**<0.0010**
Ni-CSR	mg/L		0.650	1.50	0.250
K-D	mg/L		2.16	5.11	2.51
S-D	mg/L		18.5	330	40.4
Sb-D	mg/L	0.2	**<0.00050**	**<0.0025**	**<0.00050**
Se-D	mg/L	0.01	0.00020	0.0748	0.0117
Si-D	mg/L		2.69	3.95	4.86
Sr-D	mg/L		0.343	1.84	0.142
Tl-D	mg/L	0.003	**<0.000010**	**<0.000050**	**<0.000010**
Ti-D	mg/L	1	**<0.0050**	**<0.025**	**<0.0050**
U-D	mg/L	3	**<0.00010**	**<0.00050**	**<0.00010**
V-D	mg/L		**<0.0050**	**<0.025**	**<0.0050**
Zn-D	mg/L		**<0.0050**	**<0.025**	**<0.0050**
Zn-CSR	mg/L		0.150	2.400	0.075

Notes:
Station Type: Mine Water (MW) and Groundwater (GW).
** Calculated Parameters
Bold Red results above CSR - AL
Bold indicates 1/2 detection limit was used.

Table 33 Ex-situ and In-situ Groundwater 16 Page(s)

Description			7-South Ex-Situ Groundwater			
Well ID			QU0810	QU0813A	QU0813A	QU0813A
*Station Type			GW	GW	GW	GW
Surface Elevation (m ASL)			296	221	221	221
H_2O Level (below top of casing) (m ASL)			271	209	208	207
H_2O Level below top of casing (m)			25	12	13	14
Date			7-May-24	16-Apr-24	14-May-24	24-Jun-24
Parameter	Units	CSR-AW				
SO4-D	mg/L	1280	420	46	52	49
H2SEquiv	mg/L	0.02	0.00999	0.181	0.00191	0.244
Cond-F	uS/cm		1156.4	465.5	533.9	524.3
pH-F	pH Units		6.73	7.57	7.58	7.67
Temp-F	C		13.984	10.861	10.434	9.4
DO-F	mg/L		0.24	-0.36	-0.41	0.34
ORP-F	mV		55.7	-170.7	-178.8	-129.1
Turb	NTU		15	3.8	2.2	2.6
Alk-T	mg/L		220	200	210	200
Acidity83	mg/L		10.8	**<1.0**	**<1.0**	**<1.0**
N-D	mg/L		0.373	0.234	0.263	0.241
DOC	mg/L		1.0	0.93	1.0	0.83
Hydrox	mg/L		**<1.0**	**<1.0**	**<1.0**	**<1.0**
Bicarb	mg/L		270	250	250	240
Carb	mg/L		**<1.0**	**<1.0**	**<1.0**	**<1.0**
Cl-D	mg/L	1500	**<1.0**	11	11	13
F-D	mg/L		0.32	0.64	0.64	0.65
Flu-CSR	mg/L		3.00	3.00	3.00	3.00
Br-D	mg/L		**<0.010**	0.022	0.020	0.022
P-D	mg/L		0.011	0.089	0.076	0.062
Al-D	mg/L		**<0.0030**	**<0.0030**	**<0.0030**	**<0.0030**
Ag-D	mg/L		**<0.000020**	**<0.000020**	**<0.000020**	**<0.000020**
Ag-CSR	mg/L		0.0150	0.0150	0.0150	0.0150
As-D	mg/L	0.05	0.00030	0.344	0.356	0.317
Ba-D	mg/L	10	0.0353	0.159	0.158	0.155
B-D	mg/L	12	0.331	0.793	0.783	0.851
Be-D	mg/L	0.053	**<0.00010**	**<0.00010**	**<0.00010**	**<0.00010**
Bi-D	mg/L		**<0.0010**	**<0.0010**	**<0.0010**	**<0.0010**

Notes:
Station Type: Mine Water (MW) and Groundwater (GW).
** Calculated Parameters
Bold Red results above CSR - AL
Bold indicates 1/2 detection limit was used.

Table 33 Ex-situ and In-situ Groundwater 16 Page(s)

Description			7-South Ex-Situ Groundwater			
Well ID			QU0810	QU0813A	QU0813A	QU0813A
*Station Type			GW	GW	GW	GW
Surface Elevation (m ASL)			296	221	221	221
H_2O Level (below top of casing) (m ASL)			271	209	208	207
H_2O Level below top of casing (m)			25	12	13	14
Date			7-May-24	16-Apr-24	14-May-24	24-Jun-24
Parameter	Units	CSR-AW				
Cd-D	mg/L		0.000040	**<0.000010**	**<0.000010**	**<0.000010**
Cd-CSR	mg/L		0.000600	0.000500	0.000500	0.000500
Ca-D	mg/L		186	37.2	39.9	41.6
Cr-D	mg/L	0.01	**<0.0010**	**<0.0010**	**<0.0010**	**<0.0010**
Co-D	mg/L	0.009	0.00127	**<0.00020**	**<0.00020**	**<0.00020**
Cu-D	mg/L		0.00037	**<0.00020**	**<0.00020**	**<0.00020**
Cu-CSR	mg/L		0.0900	0.0600	0.0600	0.0600
Fe-D	mg/L		0.0517	0.278	0.183	0.165
Hard-D	mg/L		629	132	138	145
Pb-D	mg/L		**<0.00020**	**<0.00020**	**<0.00020**	**<0.00020**
Pb-CSR	mg/L		0.160	0.0600	0.0600	0.0600
Mg-D	mg/L		39.8	9.42	9.34	10.1
Mn-D	mg/L		0.148	0.0447	0.0331	0.0332
Na-D	mg/L		9.47	54.3	60.3	58.3
Mo-D	mg/L	10	**<0.0010**	**<0.0010**	**<0.0010**	**<0.0010**
Ni-D	mg/L		0.0069	**<0.0010**	**<0.0010**	**<0.0010**
Ni-CSR	mg/L		1.50	1.10	1.10	1.10
K-D	mg/L		4.20	2.31	2.41	2.44
S-D	mg/L		150	19.6	19.2	19.1
Sb-D	mg/L	0.2	**<0.00050**	**<0.00050**	**<0.00050**	**<0.00050**
Se-D	mg/L	0.01	**<0.00010**	0.00071	0.00125	0.00471
Si-D	mg/L		4.09	3.84	3.80	4.00
Sr-D	mg/L		1.64	0.564	0.555	0.603
Tl-D	mg/L	0.003	0.000032	**<0.000010**	**<0.000010**	**<0.000010**
Ti-D	mg/L	1	**<0.0050**	**<0.0050**	**<0.0050**	**<0.0050**
U-D	mg/L	3	0.00117	**<0.00010**	**<0.00010**	**<0.00010**
V-D	mg/L		**<0.0050**	**<0.0050**	**<0.0050**	**<0.0050**
Zn-D	mg/L		**<0.0050**	**<0.0050**	**<0.0050**	**<0.0050**
Zn-CSR	mg/L		2.400	0.900	0.900	0.900

Notes:
Station Type: Mine Water (MW) and Groundwater (GW).
** Calculated Parameters
Bold Red results above CSR - AL
Bold indicates 1/2 detection limit was used.

Table 33 Ex-situ and In-situ Groundwater 16 Page(s)

	Description		7-South Ex-Situ Groundwater		
	Well ID		QU0813B	QU0813B	QU0813B
	*Station Type		GW	GW	GW
	Surface Elevation (m ASL)		221	221	221
H_2O Level (below top of casing) (m ASL)			208	207	204
H_2O Level below top of casing (m)			13	15	17
Date			16-Apr-24	14-May-24	25-Jun-24
Parameter	Units	CSR-AW			
SO4-D	mg/L	1280	160	190	220
H2SEquiv	mg/L	0.02	0.0223	0.0181	0.0159
Cond-F	uS/cm		526.4	638.5	664
pH-F	pH Units		7.53	7.67	7.81
Temp-F	C		9.166	9.118	10
DO-F	mg/L		-0.38	-0.28	0.61
ORP-F	mV		-168.5	-170.6	19.7
Turb	NTU		5.9	8.2	6.2
Alk-T	mg/L		130	130	140
Acidity83	mg/L		**<1.0**	**<1.0**	**<1.0**
N-D	mg/L		0.222	0.232	0.296
DOC	mg/L		0.95	1.0	0.88
Hydrox	mg/L		**<1.0**	**<1.0**	**<1.0**
Bicarb	mg/L		160	160	170
Carb	mg/L		**<1.0**	**<1.0**	**<1.0**
Cl-D	mg/L	1500	1.3	**<1.0**	1.1
F-D	mg/L		0.31	0.31	0.28
Flu-CSR	mg/L		3.00	3.00	3.00
Br-D	mg/L		**<0.010**	**<0.010**	**<0.010**
P-D	mg/L		0.18	0.21	0.19
Al-D	mg/L		**<0.0030**	**<0.0030**	**<0.0030**
Ag-D	mg/L		**<0.000020**	**<0.000020**	**<0.000020**
Ag-CSR	mg/L		0.0150	0.0150	0.0150
As-D	mg/L	0.05	0.550	0.581	0.550
Ba-D	mg/L	10	0.120	0.127	0.141
B-D	mg/L	12	0.398	0.355	0.401
Be-D	mg/L	0.053	**<0.00010**	**<0.00010**	**<0.00010**
Bi-D	mg/L		**<0.0010**	**<0.0010**	**<0.0010**

Notes:
Station Type: Mine Water (MW) and Groundwater (GW).
** Calculated Parameters
Bold Red results above CSR - AL
Bold indicates 1/2 detection limit was used.

Table 33 Ex-situ and In-situ Groundwater 16 Page(s)

Description			7-South Ex-Situ Groundwater		
Well ID			QU0813B	QU0813B	QU0813B
*Station Type			GW	GW	GW
Surface Elevation (m ASL)			221	221	221
H_2O Level (below top of casing) (m ASL)			208	207	204
H_2O Level below top of casing (m)			13	15	17
Date			16-Apr-24	14-May-24	25-Jun-24
Parameter	**Units**	**CSR-AW**			
Cd-D	**mg/L**		**<0.000010**	**<0.000010**	**<0.000010**
Cd-CSR	**mg/L**		0.000600	0.000600	0.000600
Ca-D	**mg/L**		66.9	77.5	86.8
Cr-D	**mg/L**	0.01	**<0.0010**	**<0.0010**	**<0.0010**
Co-D	**mg/L**	0.009	**<0.00020**	**<0.00020**	**<0.00020**
Cu-D	**mg/L**		**<0.00020**	**<0.00020**	**<0.00020**
Cu-CSR	**mg/L**		0.0900	0.0900	0.0900
Fe-D	**mg/L**		0.412	0.496	0.531
Hard-D	**mg/L**		221	252	286
Pb-D	**mg/L**		**<0.00020**	**<0.00020**	**<0.00020**
Pb-CSR	**mg/L**		0.110	0.110	0.110
Mg-D	**mg/L**		13.1	14.2	16.7
Mn-D	**mg/L**		0.130	0.130	0.154
Na-D	**mg/L**		29.6	31.1	33.6
Mo-D	**mg/L**	10	0.0022	0.0021	0.0021
Ni-D	**mg/L**		**<0.0010**	**<0.0010**	**<0.0010**
Ni-CSR	**mg/L**		1.50	1.50	1.50
K-D	**mg/L**		1.89	1.93	2.08
S-D	**mg/L**		57.3	64.0	76.1
Sb-D	**mg/L**	0.2	**<0.00050**	**<0.00050**	**<0.00050**
Se-D	**mg/L**	0.01	**<0.00010**	**<0.00010**	0.00012
Si-D	**mg/L**		4.48	4.43	4.66
Sr-D	**mg/L**		0.583	0.641	0.755
Tl-D	**mg/L**	0.003	**<0.000010**	**<0.000010**	**<0.000010**
Ti-D	**mg/L**	1	**<0.0050**	**<0.0050**	**<0.0050**
U-D	**mg/L**	3	**<0.00010**	**<0.00010**	**<0.00010**
V-D	**mg/L**		**<0.0050**	**<0.0050**	**<0.0050**
Zn-D	**mg/L**		**<0.0050**	**<0.0050**	**<0.0050**
Zn-CSR	**mg/L**		1.650	1.650	1.650

Notes:
Station Type: Mine Water (MW) and Groundwater (GW).
** Calculated Parameters
Bold Red results above CSR - AL
Bold indicates 1/2 detection limit was used.

Table 33 Ex-situ and In-situ Groundwater 16 Page(s)

Description			4-South Ex-Situ	2 / 3 South In-Situ	
Well ID			QU1008D	MW002	MW004
*Station Type			GW	MW	MW
Surface Elevation (m ASL)			338	325	347.8
H_2O Level (below top of casing) (m ASL)			304	318.2	298.1
H_2O Level below top of casing (m)			34	3.73	42.2
Date			4-Jun-24	29-Apr-24	2-May-24
Parameter	**Units**	**CSR-AW**			
SO4-D	mg/L	1280	**<1.0**	1200	360
H2SEquiv	mg/L	0.02	0.106	0.000957	0.000957
Cond-F	uS/cm		489	2274.3	912.8
pH-F	pH Units		8.3	6.68	6.84
Temp-F	C		8.8	10.374	9.992
DO-F	mg/L		0.29	-0.46	1.13
ORP-F	mV		-110.6	-52.4	161.6
Turb	NTU		150	67	2.2
Alk-T	mg/L		250	280	120
Acidity83	mg/L		**<1.0**	20.7	1.4
N-D	mg/L		0.198	0.231	0.136
DOC	mg/L		2.9	1	1.9
Hydrox	mg/L		**<1.0**	**<1.0**	**<1.0**
Bicarb	mg/L		280	340	140
Carb	mg/L		12	**<1.0**	**<1.0**
Cl-D	mg/L	1500	3.4	**<1.0**	**<1.0**
F-D	mg/L		1.8	0.081	0.067
Flu-CSR	mg/L		2.00	3.000	3.00
Br-D	mg/L		**<0.010**	**<0.10**	**<0.010**
P-D	mg/L		0.16	0.0052	**<0.0030**
Al-D	mg/L		0.0121	**<0.0060**	0.0107
Ag-D	mg/L		**<0.000040**	**<0.000040**	**<0.000020**
Ag-CSR	mg/L		0.000500	0.01500	0.0150
As-D	mg/L	0.05	0.140	0.00222	0.00039
Ba-D	mg/L	10	0.0258	0.0144	0.0204
B-D	mg/L	12	1.82	0.78	0.185
Be-D	mg/L	0.053	**<0.00020**	**<0.00020**	**<0.00010**
Bi-D	mg/L		**<0.0020**	**<0.0020**	**<0.0010**

Notes:
Station Type: Mine Water (MW) and Groundwater (GW).
** Calculated Parameters
Bold Red results above CSR - AL
Bold indicates 1/2 detection limit was used.

Table 33 Ex-situ and In-situ Groundwater 16 Page(s)

Description			4-South Ex-Situ	2 / 3 South In-Situ	
Well ID			QU1008D	MW002	MW004
*Station Type			GW	MW	MW
Surface Elevation (m ASL)			338	325	347.8
H_2O Level (below top of casing) (m ASL)			304	318.2	298.1
H_2O Level below top of casing (m)			34	3.73	42.2
Date			4-Jun-24	29-Apr-24	2-May-24
Parameter	**Units**	**CSR-AW**			
Cd-D	mg/L		**<0.000020**	**<0.000020**	**<0.000010**
Cd-CSR	mg/L		0.000100	0.0006000	0.000600
Ca-D	mg/L		2.26	516	145
Cr-D	mg/L	0.01	**<0.0020**	**<0.0020**	**<0.0010**
Co-D	mg/L	0.009	**<0.00040**	0.00299	**<0.00020**
Cu-D	mg/L		**<0.00040**	**<0.00040**	0.00078
Cu-CSR	mg/L		0.0200	0.09000	0.0900
Fe-D	mg/L		0.076	5.4	0.0127
Hard-D	mg/L		6.52	1510	436
Pb-D	mg/L		**<0.00040**	**<0.00040**	**<0.00020**
Pb-CSR	mg/L		0.0400	0.1600	0.160
Mg-D	mg/L		0.22	54	17.8
Mn-D	mg/L		0.119	1.74	0.0109
Na-D	mg/L		113	52.7	29.6
Mo-D	mg/L	10	**<0.0020**	**<0.0020**	**<0.0010**
Ni-D	mg/L		**<0.0020**	0.0022	**<0.0010**
Ni-CSR	mg/L		0.250	1.500	1.50
K-D	mg/L		0.60	5.99	1.37
S-D	mg/L		**<6.0**	455	127
Sb-D	mg/L	0.2	**<0.0010**	**<0.0010**	**<0.00050**
Se-D	mg/L	0.01	0.00119	**<0.00020**	**<0.00010**
Si-D	mg/L		5.06	4.2	3.23
Sr-D	mg/L		0.0549	4.43	1.06
Tl-D	mg/L	0.003	**<0.000020**	**<0.000020**	**<0.000010**
Ti-D	mg/L	1	**<0.010**	**<0.010**	**<0.0050**
U-D	mg/L	3	**<0.00020**	0.00038	**<0.00010**
V-D	mg/L		**<0.010**	**<0.010**	**<0.0050**
Zn-D	mg/L		**<0.010**	**<0.010**	**<0.0050**
Zn-CSR	mg/L		0.075	2.400	2.400

Notes:
Station Type: Mine Water (MW) and Groundwater (GW).
** Calculated Parameters
Bold Red results above CSR - AL
Bold indicates 1/2 detection limit was used.

Table 33 Ex-situ and In-situ Groundwater 16 Page(s)

	Description		2-North In-Situ	RBP Ex-Situ
	Well ID		QU1013D	QU1109M
	*Station Type		MW	MW
	Surface Elevation (m ASL)		270.68	226.897
H_2O Level (below top of casing) (m ASL)			127.68	143.032
H_2O Level below top of casing (m)			78.42	19.27
Date			28-May-24	9-Apr-24
Parameter	Units	CSR-AW		
SO4-D	mg/L	1280	530	430
H2SEquiv	mg/L	0.02	0.0542	0.0308
Cond-F	uS/cm		1875.9	1769.2
pH-F	pH Units		6.7	7.06
Temp-F	C		8.101	8.377
DO-F	mg/L		-0.56	-0.47
ORP-F	mV		-132.7	-142.3
Turb	NTU		32	71
Alk-T	mg/L		470	490
Acidity83	mg/L		10.6	3.6
N-D	mg/L		0.332	0.376
DOC	mg/L		0.85	0.90
Hydrox	mg/L		**<1.0**	**<1.0**
Bicarb	mg/L		570	600
Carb	mg/L		**<1.0**	**<1.0**
Cl-D	mg/L	1500	9.5	28
F-D	mg/L		0.061	0.098
Flu-CSR	mg/L		3.00	3.00
Br-D	mg/L		**<0.10**	0.062
P-D	mg/L		0.0080	0.0052
Al-D	mg/L		**<0.0030**	**<0.0030**
Ag-D	mg/L		**<0.000020**	**<0.000020**
Ag-CSR	mg/L		0.0150	0.0150
As-D	mg/L	0.05	0.00342	0.00243
Ba-D	mg/L	10	0.0670	0.0145
B-D	mg/L	12	1.07	0.904
Be-D	mg/L	0.053	**<0.00010**	**<0.00010**
Bi-D	mg/L		**<0.0010**	**<0.0010**

Notes:
Station Type: Mine Water (MW) and Groundwater (GW).
** Calculated Parameters
Bold Red results above CSR - AL
Bold indicates 1/2 detection limit was used.

Table 33 Ex-situ and In-situ Groundwater 16 Page(s)

Description			2-North In-Situ	RBP Ex-Situ
Well ID			QU1013D	QU1109M
*Station Type			MW	MW
Surface Elevation (m ASL)			270.68	226.897
H_2O Level (below top of casing) (m ASL)			127.68	143.032
H_2O Level below top of casing (m)			78.42	19.27
Date			28-May-24	9-Apr-24
Parameter	**Units**	**CSR-AW**		
Cd-D	mg/L		**<0.000010**	**<0.000010**
Cd-CSR	mg/L		0.000600	0.000600
Ca-D	mg/L		117	88.5
Cr-D	mg/L	0.01	**<0.0010**	**<0.0010**
Co-D	mg/L	0.009	**<0.00020**	**<0.00020**
Cu-D	mg/L		**<0.00020**	**<0.00020**
Cu-CSR	mg/L		0.0900	0.0900
Fe-D	mg/L		3.00	5.61
Hard-D	mg/L		356	266
Pb-D	mg/L		**<0.00020**	**<0.00020**
Pb-CSR	mg/L		0.160	0.110
Mg-D	mg/L		15.3	10.8
Mn-D	mg/L		0.509	0.233
Na-D	mg/L		342	343
Mo-D	mg/L	10	**<0.0010**	0.0020
Ni-D	mg/L		**<0.0010**	**<0.0010**
Ni-CSR	mg/L		1.50	1.50
K-D	mg/L		4.59	4.84
S-D	mg/L		192	165
Sb-D	mg/L	0.2	**<0.00050**	**<0.00050**
Se-D	mg/L	0.01	**<0.00010**	**<0.00010**
Si-D	mg/L		3.63	3.32
Sr-D	mg/L		1.29	1.09
Tl-D	mg/L	0.003	**<0.000010**	**<0.000010**
Ti-D	mg/L	1	**<0.0050**	**<0.0050**
U-D	mg/L	3	**<0.00010**	**<0.00010**
V-D	mg/L		**<0.0050**	**<0.0050**
Zn-D	mg/L		**<0.0050**	**<0.0050**
Zn-CSR	mg/L		2.400	1.650

Notes:
Station Type: Mine Water (MW) and Groundwater (GW).
** Calculated Parameters
Bold Red results above CSR - AL
Bold indicates 1/2 detection limit was used.

Table 33 Ex-situ and In-situ Groundwater 16 Page(s)

	Description		**7-South 2-Mains In-Situ**	
	Well ID		**QU1410**	**QU1410**
	***Station Type**		**MW**	**MW**
	Surface Elevation (m ASL)		**240.1**	**240.1**
H_2O Level (below top of casing) (m ASL)			**204.74**	**204.74**
H_2O Level below top of casing (m)			**0.6**	**0.64**
Date			**18-Apr-24**	**14-May-24**
Parameter	**Units**	**CSR-AW**		
SO4-D	**mg/L**	1280	1600	1800
H2SEquiv	**mg/L**	0.02	0.000957	0.000957
Cond-F	**uS/cm**		2904.6	3139.6
pH-F	**pH Units**		6.65	6.58
Temp-F	**C**		9.366	10.754
DO-F	**mg/L**		-0.37	-0.31
ORP-F	**mV**		-22.4	-31.4
Turb	**NTU**		34	29
Alk-T	**mg/L**		330	330
Acidity83	**mg/L**		15.3	20.8
N-D	**mg/L**		0.177	0.250
DOC	**mg/L**		1.5	1.5
Hydrox	**mg/L**		**<1.0**	**<1.0**
Bicarb	**mg/L**		400	400
Carb	**mg/L**		**<1.0**	**<1.0**
Cl-D	**mg/L**	1500	3.9	3.7
F-D	**mg/L**		0.17	0.15
Flu-CSR	**mg/L**		3.000	3.000
Br-D	**mg/L**		**<0.10**	**<0.10**
P-D	**mg/L**		0.0096	0.013
Al-D	**mg/L**		**<0.0060**	**<0.015**
Ag-D	**mg/L**		**<0.000040**	**<0.00010**
Ag-CSR	**mg/L**		0.01500	0.01500
As-D	**mg/L**	0.05	0.107	0.0961
Ba-D	**mg/L**	10	0.0155	0.0141
B-D	**mg/L**	12	1.02	1.08
Be-D	**mg/L**	0.053	**<0.00020**	**<0.00050**
Bi-D	**mg/L**		**<0.0020**	**<0.0050**

Notes:
Station Type: Mine Water (MW) and Groundwater (GW).
** Calculated Parameters
Bold Red results above CSR - AL
Bold indicates 1/2 detection limit was used.

Table 33 Ex-situ and In-situ Groundwater 16 Page(s)

	Description		7-South 2-Mains In-Situ	
	Well ID		QU1410	QU1410
	*Station Type		MW	MW
	Surface Elevation (m ASL)		240.1	240.1
H_2O Level (below top of casing) (m ASL)			204.74	204.74
H_2O Level below top of casing (m)			0.6	0.64
Date			18-Apr-24	14-May-24
Parameter	Units	CSR-AW		
Cd-D	mg/L		**<0.000020**	**<0.000050**
Cd-CSR	mg/L		0.0006000	0.0006000
Ca-D	mg/L		554	515
Cr-D	mg/L	0.01	**<0.0020**	**<0.0050**
Co-D	mg/L	0.009	**<0.00040**	**<0.0010**
Cu-D	mg/L		**<0.00040**	**<0.0010**
Cu-CSR	mg/L		0.09000	0.09000
Fe-D	mg/L		2.68	2.26
Hard-D	mg/L		2190	2050
Pb-D	mg/L		**<0.00040**	**<0.0010**
Pb-CSR	mg/L		0.1600	0.1600
Mg-D	mg/L		195	186
Mn-D	mg/L		1.56	1.43
Na-D	mg/L		56.8	51.8
Mo-D	mg/L	10	**<0.0020**	**<0.0050**
Ni-D	mg/L		**<0.0020**	**<0.0050**
Ni-CSR	mg/L		1.500	1.500
K-D	mg/L		7.97	7.41
S-D	mg/L		707	641
Sb-D	mg/L	0.2	**<0.0010**	**<0.0025**
Se-D	mg/L	0.01	**<0.00020**	**<0.00050**
Si-D	mg/L		3.6	3.27
Sr-D	mg/L		5.3	4.59
Tl-D	mg/L	0.003	**<0.000020**	**<0.000050**
Ti-D	mg/L	1	**<0.010**	**<0.025**
U-D	mg/L	3	0.00089	0.00083
V-D	mg/L		**<0.010**	**<0.025**
Zn-D	mg/L		**<0.010**	**<0.025**
Zn-CSR	mg/L		2.400	2.400

Notes:
Station Type: Mine Water (MW) and Groundwater (GW).
** Calculated Parameters
Bold Red results above CSR - AL
Bold indicates 1/2 detection limit was used.

Table 33 Ex-situ and In-situ Groundwater 16 Page(s)

	Description		**7-South 2-Mains In-Situ**		**242 In-Situ**
	Well ID		**QU1410**	**QU1410**	**242MW**
	***Station Type**		**MW**	**MW**	**MW**
	Surface Elevation (m ASL)		**240.1**	**240.1**	**290**
H_2O Level (below top of casing) (m ASL)			**204.74**	**204.74**	**256.5**
H_2O Level below top of casing (m)			**0.64**	**0.8**	**22.35**
Date			**14-May-24**	**17-Jun-24**	**13-May-24**
Parameter	**Units**	**CSR-AW**	**R**		
SO4-D	**mg/L**	1280	1800	1900	28
H2SEquiv	**mg/L**	0.02	0.000957	0.00542	0.00776
Cond-F	**uS/cm**		3139.6	2825	277.1
pH-F	**pH Units**		6.58	6.67	6.42
Temp-F	**C**		10.754	10.9	8.879
DO-F	**mg/L**		-0.31	0.86	-0.45
ORP-F	**mV**		-31.4	91.2	-83.1
Turb	**NTU**		22	9.7	45
Alk-T	**mg/L**		330	330	97
Acidity83	**mg/L**		20.0	19.2	8.7
N-D	**mg/L**		0.227	0.250	0.138
DOC	**mg/L**		1.7	1.4	0.77
Hydrox	**mg/L**		**<1.0**	**<1.0**	**<1.0**
Bicarb	**mg/L**		410	400	120
Carb	**mg/L**		**<1.0**	**<1.0**	**<1.0**
Cl-D	**mg/L**	1500	3.5	4.1	**<1.0**
F-D	**mg/L**		0.14	0.14	0.062
Flu-CSR	**mg/L**		3.000	3.000	3.00
Br-D	**mg/L**		**<0.10**	**<0.10**	**<0.010**
P-D	**mg/L**		0.013	0.011	0.012
Al-D	**mg/L**		**<0.015**	**<0.015**	0.0094
Ag-D	**mg/L**		**<0.00010**	**<0.00010**	0.000021
Ag-CSR	**mg/L**		0.01500	0.01500	0.0150
As-D	**mg/L**	0.05	0.0952	0.0770	0.0934
Ba-D	**mg/L**	10	0.0139	0.0141	0.0720
B-D	**mg/L**	12	1.10	1.05	0.063
Be-D	**mg/L**	0.053	**<0.00050**	**<0.00050**	0.00016
Bi-D	**mg/L**		**<0.0050**	**<0.0050**	**<0.0010**

Notes:
Station Type: Mine Water (MW) and Groundwater (GW).
** Calculated Parameters
Bold Red results above CSR - AL
Bold indicates 1/2 detection limit was used.

Table 33 Ex-situ and In-situ Groundwater 16 Page(s)

	Description		7-South 2-Mains In-Situ		242 In-Situ
	Well ID		QU1410	QU1410	242MW
	*Station Type		MW	MW	MW
	Surface Elevation (m ASL)		240.1	240.1	290
H_2O Level (below top of casing) (m ASL)			204.74	204.74	256.5
H_2O Level below top of casing (m)			0.64	0.8	22.35
Date			14-May-24	17-Jun-24	13-May-24
Parameter	Units	CSR-AW	R		
Cd-D	mg/L		**<0.000050**	**<0.000050**	0.000174
Cd-CSR	mg/L		0.0006000	0.0006000	0.000500
Ca-D	mg/L		519	483	40.2
Cr-D	mg/L	0.01	**<0.0050**	**<0.0050**	**<0.0010**
Co-D	mg/L	0.009	**<0.0010**	**<0.0010**	0.00063
Cu-D	mg/L		**<0.0010**	**<0.0010**	0.00085
Cu-CSR	mg/L		0.09000	0.09000	0.0500
Fe-D	mg/L		2.28	2.35	11.7
Hard-D	mg/L		2060	1870	114
Pb-D	mg/L		**<0.0010**	**<0.0010**	0.00022
Pb-CSR	mg/L		0.1600	0.1600	0.0600
Mg-D	mg/L		185	162	3.20
Mn-D	mg/L		1.40	1.48	0.447
Na-D	mg/L		51.6	48.5	2.49
Mo-D	mg/L	10	**<0.0050**	**<0.0050**	**<0.0010**
Ni-D	mg/L		**<0.0050**	**<0.0050**	**<0.0010**
Ni-CSR	mg/L		1.500	1.500	0.650
K-D	mg/L		7.33	7.29	0.441
S-D	mg/L		632	567	9.2
Sb-D	mg/L	0.2	**<0.0025**	**<0.0025**	**<0.00050**
Se-D	mg/L	0.01	**<0.00050**	**<0.00050**	0.00011
Si-D	mg/L		3.37	3.04	3.49
Sr-D	mg/L		4.52	4.43	0.0609
Tl-D	mg/L	0.003	**<0.000050**	**<0.000050**	0.000038
Ti-D	mg/L	1	**<0.025**	**<0.025**	**<0.0050**
U-D	mg/L	3	0.00085	0.00097	0.00020
V-D	mg/L		**<0.025**	**<0.025**	**<0.0050**
Zn-D	mg/L		**<0.025**	**<0.025**	**<0.0050**
Zn-CSR	mg/L		2.400	2.400	0.900

Notes:
Station Type: Mine Water (MW) and Groundwater (GW).
** Calculated Parameters
Bold Red results above CSR - AL
Bold indicates 1/2 detection limit was used.

Table 34 In-situ Minewater 18 Page(s)

	Description		2-North In-Situ		
	Well ID		5M#2	5M#2	5M#2
	*Station Type		MW	MW	MW
Date			16-Apr-24	7-May-24	4-Jun-24
Parameter	Units	CSR-AW			
SO4-D	mg/L	1280	170	160	160
H2SEquiv	mg/L	0.02	0.0223	0.0128	0.00957
Cond-F	uS/cm		1194.8	1325.8	1243
pH-F	pH Units		7.41	7.13	7.55
Temp-F	C		14.514	10.789	10.9
DO-F	mg/L				
ORP-F	mV				
Turb	NTU		3.8	4.9	3.8
Alk-T	mg/L		550	550	550
Acidity83	mg/L		1.2	9.4	**<1.0**
N-D	mg/L		0.118	0.488	0.260
DOC	mg/L		1.0	1.0	0.60
Hydrox	mg/L		**<1.0**	**<1.0**	**<1.0**
Bicarb	mg/L		670	670	680
Carb	mg/L		**<1.0**	**<1.0**	**<1.0**
Cl-D	mg/L	1500	6.7	7.4	7.6
F-D	mg/L		0.052	0.051	**<0.050**
Flu-CSR	mg/L		3.00	3.00	3.00
Br-D	mg/L		0.014	**<0.010**	0.015
P-D	mg/L		**<0.0030**	0.0031	0.0034
Al-D	mg/L		**<0.0030**	**<0.0030**	**<0.0030**
Ag-D	mg/L		**<0.000020**	**<0.000020**	**<0.000020**
Ag-CSR	mg/L		0.0150	0.0150	0.0150
As-D	mg/L	0.05	0.00735	0.00707	0.00740
Ba-D	mg/L	10	0.0303	0.0297	0.0299
B-D	mg/L	12	0.919	0.876	0.868
Be-D	mg/L	0.053	**<0.00010**	**<0.00010**	**<0.00010**
Bi-D	mg/L		**<0.0010**	**<0.0010**	**<0.0010**
Cd-D	mg/L		**<0.000010**	**<0.000010**	**<0.000010**
Cd-CSR	mg/L		0.000600	0.000600	0.000600
Ca-D	mg/L		66.0	64.8	69.1
Cr-D	mg/L	0.01	**<0.0010**	**<0.0010**	**<0.0010**
Co-D	mg/L	0.009	**<0.00020**	**<0.00020**	**<0.00020**
Cu-D	mg/L		**<0.00020**	**<0.00020**	**<0.00020**
Cu-CSR	mg/L		0.0800	0.0800	0.0800
Fe-D	mg/L		0.640	0.670	0.709
Hard-D	mg/L		189	186	197
Pb-D	mg/L		**<0.00020**	**<0.00020**	**<0.00020**
Pb-CSR	mg/L		0.0600	0.0600	0.0600
Mg-D	mg/L		5.87	5.79	5.92
Mn-D	mg/L		0.146	0.135	0.139
Hg-D	mg/L	0.001			
Na-D	mg/L		245	230	239
Mo-D	mg/L	10	**<0.0010**	**<0.0010**	**<0.0010**
Ni-D	mg/L		**<0.0010**	**<0.0010**	**<0.0010**
Ni-CSR	mg/L		1.50	1.50	1.50
K-D	mg/L		2.69	2.56	2.68

Notes:
Station Type: Mine Water (MW) and Groundwater (GW).
** Calculated Parameters
Bold Red results above CSR - AL
Bold number indicates 1/2 detection limit was used.

Table 34 In-situ Minewater 18 Page(s)

	Description		2-North In-Situ		
	Well ID		5M#2	5M#2	5M#2
	*Station Type		MW	MW	MW
Date			16-Apr-24	7-May-24	4-Jun-24
Parameter	Units	CSR-AW			
S-D	mg/L		62.4	57.8	56.8
Sb-D	mg/L	0.2	<0.00050	<0.00050	<0.00050
Se-D	mg/L	0.01	<0.00010	<0.00010	<0.00010
Si-D	mg/L		3.49	3.38	3.32
Sr-D	mg/L		0.742	0.747	0.777
Tl-D	mg/L	0.003	<0.000010	<0.000010	<0.000010
Ti-D	mg/L	1	<0.0050	<0.0050	<0.0050
U-D	mg/L	3	<0.00010	<0.00010	<0.00010
V-D	mg/L		<0.0050	<0.0050	<0.0050
Zn-D	mg/L		<0.0050	<0.0050	<0.0050
Zn-CSR	mg/L		0.900	0.900	0.900
N-NH3	mg/L		0.096	0.093	0.10
NH3-CSR	mg/L		18.5	18.5	11.3
Al-T	mg/L		<0.0030	0.0382	<0.0030
As-T	mg/L		0.00684	0.00680	0.00686
B-T	mg/L		0.941	0.861	0.794
Be-T	mg/L		<0.00010	<0.00010	<0.00010
Bi-T	mg/L		<0.0010	<0.0010	<0.0010
Ca-T	mg/L		61.8	61.5	60.1
Cd-T	mg/L		<0.000010	<0.000010	<0.000010
Co-T	mg/L		<0.00020	<0.00020	0.00022
Cr-T	mg/L		<0.0010	<0.0010	<0.0010
Cu-T	mg/L		0.00293	0.00146	0.00519
Fe-T	mg/L		0.628	0.635	0.841
Hard-T	mg/L		178	176	172
K-T	mg/L		2.53	2.51	2.37
Li-T	mg/L		0.0072	0.0065	0.0057
Mg-T	mg/L		5.74	5.49	5.27
Mn-T	mg/L		0.136	0.138	0.123
Mo-T	mg/L		<0.0010	<0.0010	<0.0010
N-T	mg/L				
Na-T	mg/L		227	232	209
Ni-T	mg/L		<0.0010	<0.0010	<0.0010
P-T	mg/L				
Pb-T	mg/L		0.00036	<0.00020	0.00061
S-T	mg/L		57.8	56.0	50.5
Sb-T	mg/L		<0.00050	<0.00050	<0.00050
Se-T	mg/L		<0.00010	<0.00010	<0.00010
Si-T	mg/L		3.32	2.98	2.94
Sn-T	mg/L		<0.0050	<0.0050	<0.0050
Sr-T	mg/L		0.676	0.656	0.649
Ti-T	mg/L		<0.0050	<0.0050	<0.0050
Tl-T	mg/L		<0.000010	<0.000010	<0.000010
U-T	mg/L		<0.00010	<0.00010	<0.00010
V-T	mg/L		<0.0050	<0.0050	<0.0050
Zn-T	mg/L		<0.0050	<0.0050	<0.0050
Zr-T	mg/L		<0.00010	<0.00010	<0.00010

Notes:
Station Type: Mine Water (MW) and Groundwater (GW).
** Calculated Parameters
Bold Red results above CSR - AL
Bold number indicates 1/2 detection limit was used.

Table 34 In-situ Minewater 18 Page(s)

	Description		2-North In-Situ		
	Well ID		1M2N	1M2N	1M2N
	*Station Type		MW	MW	MW
Date			16-Apr-24	7-May-24	4-Jun-24
Parameter	Units	CSR-AW			
SO4-D	mg/L	1280	410	470	460
H2SEquiv	mg/L	0.02	0.0946	0.0787	0.0489
Cond-F	uS/cm		1627.8	1821.7	1765
pH-F	pH Units		7.06	6.74	7.14
Temp-F	C		14.796	13.994	10.7
DO-F	mg/L				
ORP-F	mV				
Turb	NTU		49	47	39
Alk-T	mg/L		480	480	490
Acidity83	mg/L		10.7	13.4	8.6
N-D	mg/L		0.426	0.307	0.327
DOC	mg/L		1.3	1.1	0.67
Hydrox	mg/L		**<1.0**	**<1.0**	**<1.0**
Bicarb	mg/L		580	590	600
Carb	mg/L		**<1.0**	**<1.0**	**<1.0**
Cl-D	mg/L	1500	9.0	10	12
F-D	mg/L		0.11	0.11	0.12
Flu-CSR	mg/L		3.00	3.00	3.00
Br-D	mg/L		**<0.10**	**<0.10**	0.025
P-D	mg/L		**<0.0030**	0.0043	**<0.0030**
Al-D	mg/L		**<0.0030**	**<0.0030**	**<0.0030**
Ag-D	mg/L		**<0.000020**	**<0.000020**	**<0.000020**
Ag-CSR	mg/L		0.0150	0.0150	0.0150
As-D	mg/L	0.05	0.00632	0.00585	0.00657
Ba-D	mg/L	10	0.0242	0.0251	0.0241
B-D	mg/L	12	0.949	0.971	0.973
Be-D	mg/L	0.053	**<0.00010**	**<0.00010**	**<0.00010**
Bi-D	mg/L		**<0.0010**	**<0.0010**	**<0.0010**
Cd-D	mg/L		**<0.000010**	**<0.000010**	**<0.000010**
Cd-CSR	mg/L		0.000600	0.000600	0.000600
Ca-D	mg/L		108	109	120
Cr-D	mg/L	0.01	**<0.0010**	**<0.0010**	**<0.0010**
Co-D	mg/L	0.009	**<0.00020**	**<0.00020**	**<0.00020**
Cu-D	mg/L		**<0.00020**	**<0.00020**	**<0.00020**
Cu-CSR	mg/L		0.0900	0.0900	0.0900
Fe-D	mg/L		3.46	3.60	3.72
Hard-D	mg/L		322	325	353
Pb-D	mg/L		**<0.00020**	**<0.00020**	**<0.00020**
Pb-CSR	mg/L		0.160	0.160	0.160
Mg-D	mg/L		12.6	12.5	13.2
Mn-D	mg/L		0.402	0.390	0.419
Hg-D	mg/L	0.001			
Na-D	mg/L		293	269	292
Mo-D	mg/L	10	**<0.0010**	**<0.0010**	**<0.0010**
Ni-D	mg/L		**<0.0010**	**<0.0010**	**<0.0010**
Ni-CSR	mg/L		1.50	1.50	1.50
K-D	mg/L		4.43	4.30	4.53

Notes:
Station Type: Mine Water (MW) and Groundwater (GW).
** Calculated Parameters
Bold Red results above CSR - AL
Bold number indicates 1/2 detection limit was used.

Table 34 In-situ Minewater 18 Page(s)

	Description		2-North In-Situ		
	Well ID		1M2N	1M2N	1M2N
	*Station Type		MW	MW	MW
Date			16-Apr-24	7-May-24	4-Jun-24
Parameter	Units	CSR-AW			
S-D	mg/L		169	158	172
Sb-D	mg/L	0.2	<0.00050	<0.00050	<0.00050
Se-D	mg/L	0.01	<0.00010	<0.00010	<0.00010
Si-D	mg/L		3.57	3.57	3.51
Sr-D	mg/L		1.16	1.21	1.30
Tl-D	mg/L	0.003	<0.000010	<0.000010	<0.000010
Ti-D	mg/L	1	<0.0050	<0.0050	<0.0050
U-D	mg/L	3	<0.00010	<0.00010	<0.00010
V-D	mg/L		<0.0050	<0.0050	<0.0050
Zn-D	mg/L		<0.0050	<0.0050	<0.0050
Zn-CSR	mg/L		2.400	2.400	2.400
N-NH3	mg/L		0.22	0.23	0.23
NH3-CSR	mg/L		18.5	18.4	18.5
Al-T	mg/L		<0.0030	<0.0030	<0.0030
As-T	mg/L		0.00605	0.00596	0.00639
B-T	mg/L		0.983	0.848	0.854
Be-T	mg/L		<0.00010	<0.00010	<0.00010
Bi-T	mg/L		<0.0010	<0.0010	<0.0010
Ca-T	mg/L		104	104	101
Cd-T	mg/L		<0.000010	<0.000010	<0.000010
Co-T	mg/L		<0.00020	<0.00020	<0.00020
Cr-T	mg/L		<0.0010	<0.0010	<0.0010
Cu-T	mg/L		0.00084	0.00115	0.00104
Fe-T	mg/L		3.35	3.28	3.21
Hard-T	mg/L		310	306	300
K-T	mg/L		4.26	4.10	3.91
Li-T	mg/L		0.0143	0.0125	0.0127
Mg-T	mg/L		12.4	11.4	11.6
Mn-T	mg/L		0.379	0.372	0.360
Mo-T	mg/L		<0.0010	<0.0010	<0.0010
N-T	mg/L				
Na-T	mg/L		275	267	249
Ni-T	mg/L		<0.0010	<0.0010	<0.0010
P-T	mg/L				
Pb-T	mg/L		<0.00020	<0.00020	<0.00020
S-T	mg/L		162	155	149
Sb-T	mg/L		<0.00050	<0.00050	<0.00050
Se-T	mg/L		<0.00010	<0.00010	<0.00010
Si-T	mg/L		3.39	3.04	3.00
Sn-T	mg/L		<0.0050	<0.0050	<0.0050
Sr-T	mg/L		1.09	1.04	1.04
Ti-T	mg/L		<0.0050	<0.0050	<0.0050
Tl-T	mg/L		<0.000010	<0.000010	<0.000010
U-T	mg/L		<0.00010	<0.00010	<0.00010
V-T	mg/L		<0.0050	<0.0050	<0.0050
Zn-T	mg/L		<0.0050	<0.0050	<0.0050
Zr-T	mg/L		<0.00010	<0.00010	<0.00010

Notes:
Station Type: Mine Water (MW) and Groundwater (GW).
** Calculated Parameters
Bold Red results above CSR - AL
Bold number indicates 1/2 detection limit was used.

Table 34 In-situ Minewater 18 Page(s)

Description			2-North In-Situ		
Well ID			3M2N	3M2N	3M2N
*Station Type			MW	MW	MW
Date			23-Apr-24	24-May-24	18-Jun-24
Parameter	Units	CSR-AW			
SO4-D	mg/L	1280	700	690	730
H2SEquiv	mg/L	0.02		0.000957	0.000957
Cond-F	uS/cm		1953	1984	2050
pH-F	pH Units		7.25	7.21	7.22
Temp-F	C		12.3	11.3	11.5
DO-F	mg/L				
ORP-F	mV				
Turb	NTU		2.4	5.4	4.7
Alk-T	mg/L		370	380	380
Acidity83	mg/L		4.7	3.0	2.7
N-D	mg/L		0.240	0.163	0.442
DOC	mg/L		0.99	0.92	0.78
Hydrox	mg/L		**<1.0**	**<1.0**	**<1.0**
Bicarb	mg/L		450	460	470
Carb	mg/L		**<1.0**	**<1.0**	**<1.0**
Cl-D	mg/L	1500	2.3	2.2	2.8
F-D	mg/L		0.11	0.11	0.11
Flu-CSR	mg/L		3.00	3.00	3.00
Br-D	mg/L		**<0.10**	**<0.10**	**<0.10**
P-D	mg/L		**<0.0030**	**<0.0030**	**<0.0030**
Al-D	mg/L		**<0.0030**	**<0.0030**	**<0.0030**
Ag-D	mg/L		**<0.000020**	**<0.000020**	**<0.000020**
Ag-CSR	mg/L		0.0150	0.0150	0.0150
As-D	mg/L	0.05	0.00030	0.00031	0.00030
Ba-D	mg/L	10	0.0131	0.0136	0.0138
B-D	mg/L	12	0.750	0.747	0.824
Be-D	mg/L	0.053	**<0.00010**	**<0.00010**	**<0.00010**
Bi-D	mg/L		**<0.0010**	**<0.0010**	**<0.0010**
Cd-D	mg/L		**<0.000010**	**<0.000010**	**<0.000010**
Cd-CSR	mg/L		0.000600	0.000600	0.000600
Ca-D	mg/L		132	138	127
Cr-D	mg/L	0.01	**<0.0010**	**<0.0010**	**<0.0010**
Co-D	mg/L	0.009	0.00028	0.00036	0.00035
Cu-D	mg/L		**<0.00020**	**<0.00020**	**<0.00020**
Cu-CSR	mg/L		0.0900	0.0900	0.0900
Fe-D	mg/L		0.0486	0.142	0.0681
Hard-D	mg/L		401	420	392
Pb-D	mg/L		**<0.00020**	**<0.00020**	**<0.00020**
Pb-CSR	mg/L		0.160	0.160	0.160
Mg-D	mg/L		17.1	18.5	18.1
Mn-D	mg/L		0.158	0.170	0.161
Hg-D	mg/L	0.001			
Na-D	mg/L		289	321	300
Mo-D	mg/L	10	**<0.0010**	**<0.0010**	**<0.0010**
Ni-D	mg/L		**<0.0010**	**<0.0010**	**<0.0010**
Ni-CSR	mg/L		1.50	1.50	1.50
K-D	mg/L		3.14	3.57	3.36

Notes:
Station Type: Mine Water (MW) and Groundwater (GW).
** Calculated Parameters
Bold Red results above CSR - AL
Bold number indicates 1/2 detection limit was used.

Table 34 In-situ Minewater 18 Page(s)

	Description		2-North In-Situ		
	Well ID		3M2N	3M2N	3M2N
	*Station Type		MW	MW	MW
Date			23-Apr-24	24-May-24	18-Jun-24
Parameter	Units	CSR-AW			
S-D	mg/L		244	255	236
Sb-D	mg/L	0.2	<0.00050	<0.00050	<0.00050
Se-D	mg/L	0.01	<0.00010	<0.00010	<0.00010
Si-D	mg/L		3.04	3.32	2.89
Sr-D	mg/L		1.41	1.47	1.40
Tl-D	mg/L	0.003	<0.000010	<0.000010	<0.000010
Ti-D	mg/L	1	<0.0050	<0.0050	<0.0050
U-D	mg/L	3	<0.00010	<0.00010	<0.00010
V-D	mg/L		<0.0050	<0.0050	<0.0050
Zn-D	mg/L		<0.0050	<0.0050	<0.0050
Zn-CSR	mg/L		2.400	2.400	2.400
N-NH3	mg/L		0.11	0.16	0.11
NH3-CSR	mg/L		18.5	18.5	18.5
Al-T	mg/L		0.0031	<0.0030	0.0031
As-T	mg/L		0.00036	0.00035	0.00036
B-T	mg/L		0.657	0.619	0.785
Be-T	mg/L		<0.00010	<0.00010	<0.00010
Bi-T	mg/L		<0.0010	<0.0010	<0.0010
Ca-T	mg/L		121	111	124
Cd-T	mg/L		<0.000010	<0.000010	<0.000010
Co-T	mg/L		0.00026	0.00028	0.00033
Cr-T	mg/L		<0.0010	<0.0010	<0.0010
Cu-T	mg/L		<0.00050	<0.00050	<0.00050
Fe-T	mg/L		0.321	0.415	0.445
Hard-T	mg/L		363	343	379
K-T	mg/L		2.81	2.85	3.24
Li-T	mg/L		0.0137	0.0149	0.0159
Mg-T	mg/L		15.1	16.2	17.2
Mn-T	mg/L		0.140	0.147	0.153
Mo-T	mg/L		<0.0010	<0.0010	<0.0010
N-T	mg/L				
Na-T	mg/L		260	261	285
Ni-T	mg/L		<0.0010	<0.0010	<0.0010
P-T	mg/L				
Pb-T	mg/L		<0.00020	<0.00020	<0.00020
S-T	mg/L		206	202	226
Sb-T	mg/L		<0.00050	<0.00050	<0.00050
Se-T	mg/L		<0.00010	<0.00010	<0.00010
Si-T	mg/L		2.67	2.70	2.93
Sn-T	mg/L		<0.0050	<0.0050	<0.0050
Sr-T	mg/L		1.23	1.13	1.33
Ti-T	mg/L		<0.0050	<0.0050	<0.0050
Tl-T	mg/L		<0.000010	<0.000010	<0.000010
U-T	mg/L		<0.00010	<0.00010	<0.00010
V-T	mg/L		<0.0050	<0.0050	<0.0050
Zn-T	mg/L		<0.0050	<0.0050	<0.0050
Zr-T	mg/L		<0.00010	<0.00010	<0.00010

Notes:
Station Type: Mine Water (MW) and Groundwater (GW).
** Calculated Parameters
Bold Red results above CSR - AL
Bold number indicates 1/2 detection limit was used.

Table 34 In-situ Minewater 18 Page(s)

	Description		2 / 3 South In-Situ		
	Well ID		INF	INF	INF
	*Station Type		MW	MW	MW
Date			2-Apr-24	6-May-24	3-Jun-24
Parameter	Units	CSR-AW			
SO4-D	mg/L	1280	620	610	630
H2SEquiv	mg/L	0.02	0.000957	0.0255	0.000957
Cond-F	uS/cm		1450	1581	1590
pH-F	pH Units		7.07	6.46	7.08
Temp-F	C		9.5	12.7	9.2
DO-F	mg/L				
ORP-F	mV				
Turb	NTU			46	
Alk-T	mg/L		240	250	250
Acidity83	mg/L		4.9	10.6	8.5
N-D	mg/L				
DOC	mg/L				
Hydrox	mg/L		**<1.0**	**<1.0**	**<1.0**
Bicarb	mg/L		290	300	310
Carb	mg/L		**<1.0**	**<1.0**	**<1.0**
Cl-D	mg/L	1500		**<1.0**	
F-D	mg/L			0.13	
Flu-CSR	mg/L		3.00	3.00	3.00
Br-D	mg/L			**<0.010**	
P-D	mg/L				
Al-D	mg/L		**<0.015**	**<0.0030**	**<0.0030**
Ag-D	mg/L		**<0.00010**	**<0.000020**	**<0.000020**
Ag-CSR	mg/L		0.0150	0.0150	0.0150
As-D	mg/L	0.05	0.00209	0.00351	0.00361
Ba-D	mg/L	10	0.0197	0.0202	0.0190
B-D	mg/L	12	0.63	0.700	0.654
Be-D	mg/L	0.053	**<0.00050**	**<0.00010**	**<0.00010**
Bi-D	mg/L		**<0.0050**	**<0.0010**	**<0.0010**
Cd-D	mg/L		**<0.000050**	**<0.000010**	**<0.000010**
Cd-CSR	mg/L		0.000600	0.000600	0.000600
Ca-D	mg/L		236	225	249
Cr-D	mg/L	0.01	**<0.0050**	**<0.0010**	**<0.0010**
Co-D	mg/L	0.009	**<0.0010**	0.00060	0.00059
Cu-D	mg/L		**<0.0010**	**<0.00020**	**<0.00020**
Cu-CSR	mg/L		0.0900	0.0900	0.0900
Fe-D	mg/L		2.37	4.47	2.78
Hard-D	mg/L		654	633	694
Pb-D	mg/L		**<0.0010**	**<0.00020**	**<0.00020**
Pb-CSR	mg/L		0.160	0.160	0.160
Mg-D	mg/L		15.6	17.6	17.3
Mn-D	mg/L		0.302	0.357	0.374
Hg-D	mg/L	0.001			
Na-D	mg/L		97.9	97.2	105
Mo-D	mg/L	10	**<0.0050**	**<0.0010**	**<0.0010**
Ni-D	mg/L		**<0.0050**	0.0011	0.0011
Ni-CSR	mg/L		1.50	1.50	1.50
K-D	mg/L		1.79	1.93	1.99

Notes:
Station Type: Mine Water (MW) and Groundwater (GW).
** Calculated Parameters
Bold Red results above CSR - AL
Bold number indicates 1/2 detection limit was used.

Table 34 In-situ Minewater 18 Page(s)

	Description		2 / 3 South In-Situ		
	Well ID		INF	INF	INF
	*Station Type		MW	MW	MW
Date			2-Apr-24	6-May-24	3-Jun-24
Parameter	Units	CSR-AW			
S-D	mg/L		194	216	228
Sb-D	mg/L	0.2	<0.0025	<0.00050	<0.00050
Se-D	mg/L	0.01	<0.00050	0.00058	0.00024
Si-D	mg/L		2.74	3.07	2.99
Sr-D	mg/L		1.91	2.21	2.43
Tl-D	mg/L	0.003	<0.000050	<0.000010	<0.000010
Ti-D	mg/L	1	<0.025	<0.0050	<0.0050
U-D	mg/L	3	<0.00050	<0.00010	<0.00010
V-D	mg/L		<0.025	<0.0050	<0.0050
Zn-D	mg/L		<0.025	<0.0050	<0.0050
Zn-CSR	mg/L		2.400	2.400	2.400
N-NH3	mg/L		0.043	0.045	0.058
NH3-CSR	mg/L		18.5	18.4	18.5
Al-T	mg/L		0.0058	<0.0030	<0.0030
As-T	mg/L		0.00243	0.00350	0.00347
B-T	mg/L		0.572	0.566	0.606
Be-T	mg/L		<0.00010	<0.00010	<0.00010
Bi-T	mg/L		<0.0010	<0.0010	<0.0010
Ca-T	mg/L		202	214	215
Cd-T	mg/L		<0.000010	<0.000010	<0.000010
Co-T	mg/L		0.00068	0.00053	0.00057
Cr-T	mg/L		<0.0010	<0.0010	<0.0010
Cu-T	mg/L		0.00087	<0.00050	<0.00050
Fe-T	mg/L		2.06	4.07	2.43
Hard-T	mg/L		563	600	601
K-T	mg/L		1.66	1.74	1.83
Li-T	mg/L		0.0184	0.0190	0.0195
Mg-T	mg/L		14.4	15.9	15.6
Mn-T	mg/L		0.267	0.321	0.351
Mo-T	mg/L		<0.0010	<0.0010	<0.0010
N-T	mg/L				
Na-T	mg/L		87.1	88.6	89.6
Ni-T	mg/L		0.0012	<0.0010	<0.0010
P-T	mg/L		<0.0030	<0.0030	<0.0030
Pb-T	mg/L		<0.00020	<0.00020	<0.00020
S-T	mg/L		207	193	207
Sb-T	mg/L		<0.00050	<0.00050	<0.00050
Se-T	mg/L		<0.00010	<0.00010	<0.00010
Si-T	mg/L		2.72	2.81	2.68
Sn-T	mg/L		<0.0050	<0.0050	<0.0050
Sr-T	mg/L		1.92	1.90	2.23
Ti-T	mg/L		<0.0050	<0.0050	<0.0050
Tl-T	mg/L		<0.000010	<0.000010	<0.000010
U-T	mg/L		<0.00010	<0.00010	<0.00010
V-T	mg/L		<0.0050	<0.0050	<0.0050
Zn-T	mg/L		<0.0050	<0.0050	<0.0050
Zr-T	mg/L		<0.00010	<0.00010	<0.00010

Notes:
Station Type: Mine Water (MW) and Groundwater (GW).
** Calculated Parameters
Bold Red results above CSR - AL
Bold number indicates 1/2 detection limit was used.

Table 34 In-situ Minewater 18 Page(s)

Description			7-South Potal Sump In-Situ		
Well ID			7SPS	7SPS	7SPS
*Station Type			MW	MW	MW
Date			2-Apr-24	6-May-24	3-Jun-24
Parameter	Units	CSR-AW			
SO4-D	mg/L	1280	200	240	220
H2SEquiv	mg/L	0.02			
Cond-F	uS/cm		554	691	650
pH-F	pH Units		6.88	6.65	7.31
Temp-F	C		9.5	11.5	16.1
DO-F	mg/L				
ORP-F	mV				
Turb	NTU				35
Alk-T	mg/L		64	110	120
Acidity83	mg/L		2.5	4.8	2.0
N-D	mg/L				
DOC	mg/L				
Hydrox	mg/L		**<1.0**	**<1.0**	**<1.0**
Bicarb	mg/L		78	140	150
Carb	mg/L		**<1.0**	**<1.0**	**<1.0**
Cl-D	mg/L	1500			
F-D	mg/L				
Flu-CSR	mg/L		3.00	3.00	3.00
Br-D	mg/L				
P-D	mg/L				
Al-D	mg/L		**<0.015**	**<0.0030**	0.0043
Ag-D	mg/L		**<0.00010**	**<0.000020**	**<0.000020**
Ag-CSR	mg/L		0.0150	0.0150	0.0150
As-D	mg/L	0.05	0.00054	0.00045	0.00048
Ba-D	mg/L	10	0.0140	0.0135	0.0171
B-D	mg/L	12	**<0.25**	0.104	0.097
Be-D	mg/L	0.053	**<0.00050**	**<0.00010**	**<0.00010**
Bi-D	mg/L		**<0.0050**	**<0.0010**	**<0.0010**
Cd-D	mg/L		**<0.000050**	0.000010	**<0.000010**
Cd-CSR	mg/L		0.000600	0.000600	0.000600
Ca-D	mg/L		73.7	90.5	97.0
Cr-D	mg/L	0.01	**<0.0050**	**<0.0010**	**<0.0010**
Co-D	mg/L	0.009	0.0044	0.00258	0.00132
Cu-D	mg/L		0.0013	0.00061	0.00074
Cu-CSR	mg/L		0.0900	0.0900	0.0900
Fe-D	mg/L		2.46	0.569	0.119
Hard-D	mg/L		253	322	331
Pb-D	mg/L		**<0.0010**	**<0.00020**	**<0.00020**
Pb-CSR	mg/L		0.110	0.160	0.160
Mg-D	mg/L		16.9	23.3	21.7
Mn-D	mg/L		0.192	0.186	0.112
Hg-D	mg/L	0.001			
Na-D	mg/L		5.26	8.56	9.07
Mo-D	mg/L	10	**<0.0050**	**<0.0010**	**<0.0010**
Ni-D	mg/L		0.0087	0.0057	0.0035
Ni-CSR	mg/L		1.50	1.50	1.50
K-D	mg/L		0.66	0.780	0.824

Notes:
Station Type: Mine Water (MW) and Groundwater (GW).
** Calculated Parameters
Bold Red results above CSR - AL
Bold number indicates 1/2 detection limit was used.

Table 34 In-situ Minewater 18 Page(s)

Description			7-South Potal Sump In-Situ		
Well ID			7SPS	7SPS	7SPS
*Station Type			MW	MW	MW
Date			2-Apr-24	6-May-24	3-Jun-24
Parameter	Units	CSR-AW			
S-D	mg/L		59	82.8	76.3
Sb-D	mg/L	0.2	<0.0025	<0.00050	<0.00050
Se-D	mg/L	0.01	<0.00050	<0.00010	<0.00010
Si-D	mg/L		4.60	4.91	4.46
Sr-D	mg/L		0.239	0.359	0.397
Tl-D	mg/L	0.003	<0.000050	<0.000010	<0.000010
Ti-D	mg/L	1	<0.025	<0.0050	<0.0050
U-D	mg/L	3	<0.00050	0.00025	0.00031
V-D	mg/L		<0.025	<0.0050	<0.0050
Zn-D	mg/L		<0.025	0.0075	<0.0050
Zn-CSR	mg/L		1.650	2.400	2.400
N-NH3	mg/L				
NH3-CSR	mg/L		18.4	18.4	18.5
Al-T	mg/L		0.157	0.0700	0.0557
As-T	mg/L		0.00137	0.00124	0.00141
B-T	mg/L		0.072	0.108	0.072
Be-T	mg/L		<0.00010	<0.00010	<0.00010
Bi-T	mg/L		<0.0010	<0.0010	<0.0010
Ca-T	mg/L		68.1	88.6	83.5
Cd-T	mg/L		0.000025	0.000014	<0.000010
Co-T	mg/L		0.00420	0.00251	0.00121
Cr-T	mg/L		<0.0010	<0.0010	<0.0010
Cu-T	mg/L		0.00305	0.00112	0.00108
Fe-T	mg/L		4.82	4.03	2.63
Hard-T	mg/L		240	313	283
K-T	mg/L		0.664	0.697	0.713
Li-T	mg/L		<0.0020	<0.0020	<0.0020
Mg-T	mg/L		17.0	22.2	18.2
Mn-T	mg/L		0.199	0.178	0.0945
Mo-T	mg/L		<0.0010	<0.0010	<0.0010
N-T	mg/L				
Na-T	mg/L		4.84	8.41	7.70
Ni-T	mg/L		0.0088	0.0055	0.0031
P-T	mg/L				
Pb-T	mg/L		<0.00020	<0.00020	<0.00020
S-T	mg/L		64.7	78.8	66.4
Sb-T	mg/L		<0.00050	<0.00050	<0.00050
Se-T	mg/L		<0.00010	<0.00010	<0.00010
Si-T	mg/L		5.10	4.85	4.26
Sn-T	mg/L		<0.0050	<0.0050	<0.0050
Sr-T	mg/L		0.251	0.344	0.325
Ti-T	mg/L		<0.0050	<0.0050	<0.0050
Tl-T	mg/L		<0.000010	<0.000010	<0.000010
U-T	mg/L		0.00013	0.00023	0.00026
V-T	mg/L		<0.0050	<0.0050	<0.0050
Zn-T	mg/L		0.0166	0.0106	<0.0050
Zr-T	mg/L		<0.00010	<0.00010	<0.00010

Notes:
Station Type: Mine Water (MW) and Groundwater (GW).
** Calculated Parameters
Bold Red results above CSR - AL
Bold number indicates 1/2 detection limit was used.

Table 34 In-situ Minewater 18 Page(s)

	Description		In-situ 7-South Underground Sump		
	Well ID		1M7SA5	1M7SA5	1M7SA5
	*Station Type		MW	MW	MW
Date			23-Apr-24	24-May-24	18-Jun-24
Parameter	Units	CSR-AW			
SO4-D	mg/L	1280	170	160	150
H2SEquiv	mg/L	0.02	0.000957	0.000957	0.000957
Cond-F	uS/cm		530	521	553
pH-F	pH Units		7.87	7.77	8.13
Temp-F	C		7	7.3	8.2
DO-F	mg/L				
ORP-F	mV				
Turb	NTU		0.91	1.8	1.5
Alk-T	mg/L		97	100	130
Acidity83	mg/L		1.5	1.5	**<1.0**
N-D	mg/L		0.189	0.223	0.185
DOC	mg/L		1.3	1.3	1.3
Hydrox	mg/L		**<1.0**	**<1.0**	**<1.0**
Bicarb	mg/L		120	120	160
Carb	mg/L		**<1.0**	**<1.0**	**<1.0**
Cl-D	mg/L	1500	**<1.0**	6.0	**<1.0**
F-D	mg/L		0.22	0.25	0.32
Flu-CSR	mg/L		3.00	3.00	3.00
Br-D	mg/L		**<0.010**	**<0.010**	0.019
P-D	mg/L		0.0040	0.0052	0.0038
Al-D	mg/L		0.0042	0.0031	0.0051
Ag-D	mg/L		**<0.000020**	**<0.000020**	**<0.000020**
Ag-CSR	mg/L		0.0150	0.0150	0.0150
As-D	mg/L	0.05	0.0333	0.0355	0.0131
Ba-D	mg/L	10	0.0617	0.0661	0.107
B-D	mg/L	12	0.257	0.279	0.443
Be-D	mg/L	0.053	**<0.00010**	**<0.00010**	**<0.00010**
Bi-D	mg/L		**<0.0010**	**<0.0010**	**<0.0010**
Cd-D	mg/L		**<0.000010**	**<0.000010**	**<0.000010**
Cd-CSR	mg/L		0.000600	0.000600	0.000600
Ca-D	mg/L		77.9	78.7	67.1
Cr-D	mg/L	0.01	**<0.0010**	**<0.0010**	**<0.0010**
Co-D	mg/L	0.009	0.00186	0.00147	0.00106
Cu-D	mg/L		0.00027	0.00027	0.00043
Cu-CSR	mg/L		0.0900	0.0900	0.0900
Fe-D	mg/L		0.0183	0.0217	0.0438
Hard-D	mg/L		255	262	233
Pb-D	mg/L		**<0.00020**	**<0.00020**	**<0.00020**
Pb-CSR	mg/L		0.110	0.110	0.110
Mg-D	mg/L		14.7	15.8	15.8
Mn-D	mg/L		0.0782	0.0664	0.0564
Hg-D	mg/L	0.001			
Na-D	mg/L		9.64	11.1	17.5
Mo-D	mg/L	10	**<0.0010**	**<0.0010**	**<0.0010**
Ni-D	mg/L		0.0046	0.0038	0.0038
Ni-CSR	mg/L		1.50	1.50	1.50
K-D	mg/L		1.24	1.55	1.80

Notes:
Station Type: Mine Water (MW) and Groundwater (GW).
** Calculated Parameters
Bold Red results above CSR - AL
Bold number indicates 1/2 detection limit was used.

Table 34 In-situ Minewater 18 Page(s)

	Description		In-situ 7-South Underground Sump		
	Well ID		1M7SA5	1M7SA5	1M7SA5
	*Station Type		MW	MW	MW
Date			23-Apr-24	24-May-24	18-Jun-24
Parameter	Units	CSR-AW			
S-D	mg/L		60.3	61.0	49.3
Sb-D	mg/L	0.2	<0.00050	<0.00050	<0.00050
Se-D	mg/L	0.01	<0.00010	<0.00010	0.00026
Si-D	mg/L		3.54	3.88	3.89
Sr-D	mg/L		0.447	0.445	0.534
Tl-D	mg/L	0.003	0.000023	0.000020	<0.000010
Ti-D	mg/L	1	<0.0050	<0.0050	<0.0050
U-D	mg/L	3	<0.00010	<0.00010	<0.00010
V-D	mg/L		<0.0050	<0.0050	<0.0050
Zn-D	mg/L		<0.0050	<0.0050	<0.0050
Zn-CSR	mg/L		1.650	1.650	1.650
N-NH3	mg/L		0.027	0.036	<0.015
NH3-CSR	mg/L		11.3	11.3	3.70
Al-T	mg/L		0.0034	0.0116	0.0137
As-T	mg/L		0.0361	0.0391	0.0162
B-T	mg/L		0.208	0.221	0.364
Be-T	mg/L		<0.00010	<0.00010	<0.00010
Bi-T	mg/L		<0.0010	<0.0010	<0.0010
Ca-T	mg/L		67.7	63.6	57.2
Cd-T	mg/L		<0.000010	<0.000010	<0.000010
Co-T	mg/L		0.00165	0.00113	0.00098
Cr-T	mg/L		<0.0010	<0.0010	<0.0010
Cu-T	mg/L		<0.00050	<0.00050	0.00060
Fe-T	mg/L		0.097	0.234	0.232
Hard-T	mg/L		223	210	199
K-T	mg/L		1.11	1.17	1.53
Li-T	mg/L		0.0157	0.0188	0.0247
Mg-T	mg/L		13.0	12.4	13.7
Mn-T	mg/L		0.0685	0.0526	0.0505
Mo-T	mg/L		<0.0010	<0.0010	<0.0010
N-T	mg/L				
Na-T	mg/L		8.66	8.83	14.9
Ni-T	mg/L		0.0041	0.0030	0.0033
P-T	mg/L				
Pb-T	mg/L		<0.00020	<0.00020	<0.00020
S-T	mg/L		48.8	47.7	42.6
Sb-T	mg/L		<0.00050	<0.00050	<0.00050
Se-T	mg/L		<0.00010	0.00010	<0.00010
Si-T	mg/L		3.02	3.21	3.36
Sn-T	mg/L		<0.0050	<0.0050	<0.0050
Sr-T	mg/L		0.383	0.364	0.447
Ti-T	mg/L		<0.0050	<0.0050	<0.0050
Tl-T	mg/L		0.000019	0.000015	<0.000010
U-T	mg/L		<0.00010	<0.00010	<0.00010
V-T	mg/L		<0.0050	<0.0050	<0.0050
Zn-T	mg/L		<0.0050	<0.0050	<0.0050
Zr-T	mg/L		<0.00010	<0.00010	<0.00010

Notes:
Station Type: Mine Water (MW) and Groundwater (GW).
** Calculated Parameters
Bold Red results above CSR - AL
Bold number indicates 1/2 detection limit was used.

Table 34 In-situ Minewater 18 Page(s)

Description			In-Situ 7-South Area 5		
Well ID			7SA5	7SA5	7SA5
*Station Type			MW	MW	MW
Date			23-Apr-24	24-May-24	18-Jun-24
Parameter	Units	CSR-AW			
SO4-D	mg/L	1280	69	120	140
H2SEquiv	mg/L	0.02	0.000957	0.00446	0.000957
Cond-F	uS/cm		439	544	549
pH-F	pH Units		8.2	7.41	7.51
Temp-F	C		8	9.3	8.4
DO-F	mg/L				
ORP-F	mV				
Turb	NTU		5.3	20	7.2
Alk-T	mg/L		160	140	140
Acidity83	mg/L		**<1.0**	**<1.0**	**<1.0**
N-D	mg/L		**<0.10**	0.369	0.192
DOC	mg/L		0.93	2.2	1.3
Hydrox	mg/L		**<1.0**	**<1.0**	**<1.0**
Bicarb	mg/L		200	170	170
Carb	mg/L		**<1.0**	**<1.0**	**<1.0**
Cl-D	mg/L	1500	1.6	**<1.0**	**<1.0**
F-D	mg/L		0.44	0.28	0.32
Flu-CSR	mg/L		3.00	3.00	3.00
Br-D	mg/L		**<0.010**	0.024	0.020
P-D	mg/L		0.0099	**<0.0030**	0.0037
Al-D	mg/L		0.0045	0.0033	**<0.0030**
Ag-D	mg/L		**<0.000020**	**<0.000020**	**<0.000020**
Ag-CSR	mg/L		0.0150	0.0150	0.0150
As-D	mg/L	0.05	0.107	0.00217	0.0116
Ba-D	mg/L	10	0.145	0.160	0.111
B-D	mg/L	12	0.599	0.329	0.462
Be-D	mg/L	0.053	**<0.00010**	**<0.00010**	**<0.00010**
Bi-D	mg/L		**<0.0010**	**<0.0010**	**<0.0010**
Cd-D	mg/L		**<0.000010**	**<0.000010**	**<0.000010**
Cd-CSR	mg/L		0.000600	0.000600	0.000600
Ca-D	mg/L		55.1	78.8	65.0
Cr-D	mg/L	0.01	**<0.0010**	**<0.0010**	**<0.0010**
Co-D	mg/L	0.009	0.00092	0.00261	0.00222
Cu-D	mg/L		0.00041	0.00103	0.00034
Cu-CSR	mg/L		0.0800	0.0900	0.0900
Fe-D	mg/L		0.0314	0.0401	0.115
Hard-D	mg/L		184	266	224
Pb-D	mg/L		**<0.00020**	**<0.00020**	**<0.00020**
Pb-CSR	mg/L		0.0600	0.110	0.110
Mg-D	mg/L		11.2	16.8	14.9
Mn-D	mg/L		0.0297	0.121	0.105
Hg-D	mg/L	0.001			
Na-D	mg/L		23.0	16.4	18.5
Mo-D	mg/L	10	**<0.0010**	**<0.0010**	**<0.0010**
Ni-D	mg/L		0.0019	0.0051	0.0051
Ni-CSR	mg/L		1.50	1.50	1.50
K-D	mg/L		2.07	1.63	1.83

Notes:
Station Type: Mine Water (MW) and Groundwater (GW).
** Calculated Parameters
Bold Red results above CSR - AL
Bold number indicates 1/2 detection limit was used.

Table 34 In-situ Minewater 18 Page(s)

	Description		In-Situ 7-South Area 5		
	Well ID		7SA5	7SA5	7SA5
	*Station Type		MW	MW	MW
Date			23-Apr-24	24-May-24	18-Jun-24
Parameter	Units	CSR-AW			
S-D	mg/L		24.0	55.7	45.0
Sb-D	mg/L	0.2	<0.00050	<0.00050	<0.00050
Se-D	mg/L	0.01	<0.00010	<0.00010	0.00015
Si-D	mg/L		5.78	4.67	4.08
Sr-D	mg/L		0.596	0.463	0.525
Tl-D	mg/L	0.003	<0.000010	<0.000010	<0.000010
Ti-D	mg/L	1	<0.0050	<0.0050	<0.0050
U-D	mg/L	3	<0.00010	0.00015	<0.00010
V-D	mg/L		<0.0050	<0.0050	<0.0050
Zn-D	mg/L		<0.0050	0.0070	0.0054
Zn-CSR	mg/L		0.900	1.650	1.650
N-NH3	mg/L		<0.015	<0.015	0.023
NH3-CSR	mg/L		3.7	18.5	11.3
Al-T	mg/L		0.0281	0.0459	0.0373
As-T	mg/L		0.111	0.0275	0.0274
B-T	mg/L		0.510	0.257	0.442
Be-T	mg/L		<0.00010	<0.00010	<0.00010
Bi-T	mg/L		<0.0010	<0.0010	<0.0010
Ca-T	mg/L		46.6	63.6	60.1
Cd-T	mg/L		<0.000010	<0.000010	0.000035
Co-T	mg/L		0.00107	0.00219	0.00220
Cr-T	mg/L		<0.0010	<0.0010	<0.0010
Cu-T	mg/L		0.00094	0.00217	0.00092
Fe-T	mg/L		0.452	1.50	0.666
Hard-T	mg/L		157	214	208
K-T	mg/L		1.78	1.30	1.65
Li-T	mg/L		0.0318	0.0200	0.0269
Mg-T	mg/L		9.93	13.5	14.1
Mn-T	mg/L		0.0300	0.0984	0.101
Mo-T	mg/L		<0.0010	<0.0010	<0.0010
N-T	mg/L				
Na-T	mg/L		20.3	13.3	17.3
Ni-T	mg/L		0.0021	0.0043	0.0048
P-T	mg/L				
Pb-T	mg/L		<0.00020	<0.00020	<0.00020
S-T	mg/L		21.8	43.7	42.5
Sb-T	mg/L		<0.00050	<0.00050	<0.00050
Se-T	mg/L		<0.00010	<0.00010	<0.00010
Si-T	mg/L		4.83	3.84	3.87
Sn-T	mg/L		<0.0050	<0.0050	<0.0050
Sr-T	mg/L		0.487	0.372	0.481
Ti-T	mg/L		<0.0050	<0.0050	<0.0050
Tl-T	mg/L		<0.000010	<0.000010	<0.000010
U-T	mg/L		<0.00010	0.00010	<0.00010
V-T	mg/L		<0.0050	<0.0050	<0.0050
Zn-T	mg/L		<0.0050	0.0077	0.0073
Zr-T	mg/L		<0.00010	<0.00010	<0.00010

Notes:
Station Type: Mine Water (MW) and Groundwater (GW).
** Calculated Parameters
Bold Red results above CSR - AL
Bold number indicates 1/2 detection limit was used.

Table 34 In-situ Minewater 18 Page(s)

Description			In-Situ 7-South 2-Mains		
Well ID			2M7S	2M7S	2M7S
*Station Type			MW	MW	MW
Date			23-Apr-24	24-May-24	18-Jun-24
Parameter	Units	CSR-AW			
SO4-D	mg/L	1280	230	240	250
H2SEquiv	mg/L	0.02	0.000957	0.000957	0.000957
Cond-F	uS/cm		588	650	665
pH-F	pH Units		7.65	7.44	7.47
Temp-F	C		7.3	6.9	7.3
DO-F	mg/L				
ORP-F	mV				
Turb	NTU		1.0	2.1	1.2
Alk-T	mg/L		72	67	68
Acidity83	mg/L		1.7	2.0	1.3
N-D	mg/L		0.169	0.181	0.192
DOC	mg/L		1.4	1.3	1.4
Hydrox	mg/L		**<1.0**	**<1.0**	**<1.0**
Bicarb	mg/L		88	81	83
Carb	mg/L		**<1.0**	**<1.0**	**<1.0**
Cl-D	mg/L	1500	**<1.0**	**<1.0**	**<1.0**
F-D	mg/L		0.11	0.11	0.11
Flu-CSR	mg/L		3.00	3.00	3.00
Br-D	mg/L		0.010	0.014	0.013
P-D	mg/L		**<0.0030**	**<0.0030**	**<0.0030**
Al-D	mg/L		**<0.0030**	**<0.0030**	**<0.0030**
Ag-D	mg/L		**<0.000020**	**<0.000020**	**<0.000020**
Ag-CSR	mg/L		0.0150	0.0150	0.0150
As-D	mg/L	0.05	0.00019	0.00016	0.00019
Ba-D	mg/L	10	0.0271	0.0278	0.0270
B-D	mg/L	12	0.180	0.200	0.216
Be-D	mg/L	0.053	**<0.00010**	**<0.00010**	**<0.00010**
Bi-D	mg/L		**<0.0010**	**<0.0010**	**<0.0010**
Cd-D	mg/L		0.000010	0.000011	0.000012
Cd-CSR	mg/L		0.000600	0.000600	0.000600
Ca-D	mg/L		93.5	95.5	88.9
Cr-D	mg/L	0.01	**<0.0010**	**<0.0010**	**<0.0010**
Co-D	mg/L	0.009	0.00388	0.00357	0.00327
Cu-D	mg/L		0.00031	0.00030	0.00026
Cu-CSR	mg/L		0.0900	0.0900	0.0900
Fe-D	mg/L		0.0521	0.0633	0.0809
Hard-D	mg/L		303	312	294
Pb-D	mg/L		**<0.00020**	**<0.00020**	**<0.00020**
Pb-CSR	mg/L		0.160	0.160	0.110
Mg-D	mg/L		16.8	17.8	17.4
Mn-D	mg/L		0.157	0.157	0.158
Hg-D	mg/L	0.001			
Na-D	mg/L		7.14	7.76	7.32
Mo-D	mg/L	10	**<0.0010**	**<0.0010**	**<0.0010**
Ni-D	mg/L		0.0080	0.0079	0.0076
Ni-CSR	mg/L		1.50	1.50	1.50
K-D	mg/L		0.987	1.08	1.06

Notes:
Station Type: Mine Water (MW) and Groundwater (GW).
** Calculated Parameters
Bold Red results above CSR - AL
Bold number indicates 1/2 detection limit was used.

Table 34 In-situ Minewater 18 Page(s)

	Description		In-Situ 7-South 2-Mains		
	Well ID		2M7S	2M7S	2M7S
	*Station Type		MW	MW	MW
Date			23-Apr-24	24-May-24	18-Jun-24
Parameter	Units	CSR-AW			
S-D	mg/L		79.8	88.2	82.0
Sb-D	mg/L	0.2	<0.00050	<0.00050	<0.00050
Se-D	mg/L	0.01	0.00011	0.00010	0.00014
Si-D	mg/L		3.17	3.40	3.08
Sr-D	mg/L		0.435	0.484	0.475
Tl-D	mg/L	0.003	0.000049	0.000051	0.000063
Ti-D	mg/L	1	<0.0050	<0.0050	<0.0050
U-D	mg/L	3	<0.00010	<0.00010	<0.00010
V-D	mg/L		<0.0050	<0.0050	<0.0050
Zn-D	mg/L		0.0133	0.0149	0.0142
Zn-CSR	mg/L		2.400	2.400	1.650
N-NH3	mg/L		<0.015	<0.015	<0.015
NH3-CSR	mg/L		11.3	18.5	18.5
Al-T	mg/L		0.0031	0.0055	0.0054
As-T	mg/L		0.00097	0.00069	0.00050
B-T	mg/L		0.152	0.151	0.212
Be-T	mg/L		<0.00010	<0.00010	<0.00010
Bi-T	mg/L		<0.0010	<0.0010	<0.0010
Ca-T	mg/L		82.0	74.6	79.9
Cd-T	mg/L		0.000011	0.000013	0.000012
Co-T	mg/L		0.00364	0.00296	0.00311
Cr-T	mg/L		<0.0010	<0.0010	<0.0010
Cu-T	mg/L		<0.00050	<0.00050	<0.00050
Fe-T	mg/L		0.343	0.477	0.400
Hard-T	mg/L		266	246	266
K-T	mg/L		0.899	0.869	0.966
Li-T	mg/L		0.0095	0.0109	0.0114
Mg-T	mg/L		14.8	14.5	16.0
Mn-T	mg/L		0.142	0.139	0.146
Mo-T	mg/L		<0.0010	<0.0010	<0.0010
N-T	mg/L				
Na-T	mg/L		6.45	6.09	6.72
Ni-T	mg/L		0.0077	0.0065	0.0073
P-T	mg/L				
Pb-T	mg/L		<0.00020	<0.00020	<0.00020
S-T	mg/L		69.9	69.8	76.4
Sb-T	mg/L		<0.00050	<0.00050	<0.00050
Se-T	mg/L		0.00012	<0.00010	0.00011
Si-T	mg/L		2.74	2.72	2.86
Sn-T	mg/L		<0.0050	<0.0050	<0.0050
Sr-T	mg/L		0.378	0.359	0.428
Ti-T	mg/L		<0.0050	<0.0050	<0.0050
Tl-T	mg/L		0.000045	0.000039	0.000057
U-T	mg/L		<0.00010	<0.00010	<0.00010
V-T	mg/L		<0.0050	<0.0050	<0.0050
Zn-T	mg/L		0.0135	0.0137	0.0146
Zr-T	mg/L		<0.00010	<0.00010	<0.00010

Notes:
Station Type: Mine Water (MW) and Groundwater (GW).
** Calculated Parameters
Bold Red results above CSR - AL
Bold number indicates 1/2 detection limit was used.

Table 34 In-situ Minewater 18 Page(s)

	Description		In-Situ 7-South 3-Mains		
	Well ID		3M7S	3M7S	3M7S
	*Station Type		MW	MW	MW
Date			23-Apr-24	24-May-24	18-Jun-24
Parameter	Units	CSR-AW			
SO4-D	mg/L	1280	840	800	860
H2SEquiv	mg/L	0.02	0.000957	0.000957	0.000957
Cond-F	uS/cm		1581	1570	1532
pH-F	pH Units		7.57	7.17	7.36
Temp-F	C		7.8	7.2	7.5
DO-F	mg/L				
ORP-F	mV				
Turb	NTU		0.64	0.90	0.75
Alk-T	mg/L		110	100	110
Acidity83	mg/L		3.9	3.1	2.9
N-D	mg/L		0.165	0.083	0.060
DOC	mg/L		**<0.50**	0.65	0.75
Hydrox	mg/L		**<1.0**	**<1.0**	**<1.0**
Bicarb	mg/L		130	120	130
Carb	mg/L		**<1.0**	**<1.0**	**<1.0**
Cl-D	mg/L	1500	1.7	1.4	1.4
F-D	mg/L		0.25	0.26	0.25
Flu-CSR	mg/L		3.00	3.00	3.00
Br-D	mg/L		**<0.10**	**<0.10**	**<0.10**
P-D	mg/L		**<0.0030**	**<0.0030**	**<0.0030**
Al-D	mg/L		**<0.0060**	**<0.0060**	**<0.0060**
Ag-D	mg/L		**<0.000040**	0.000149	**<0.000040**
Ag-CSR	mg/L		0.0150	0.0150	0.0150
As-D	mg/L	0.05	**<0.00020**	0.00048	**<0.00020**
Ba-D	mg/L	10	0.0220	0.0226	0.0206
B-D	mg/L	12	0.89	0.87	0.85
Be-D	mg/L	0.053	**<0.00020**	0.00039	**<0.00020**
Bi-D	mg/L		**<0.0020**	**<0.0020**	**<0.0020**
Cd-D	mg/L		0.000021	0.000815	**<0.000020**
Cd-CSR	mg/L		0.000600	0.000600	0.000600
Ca-D	mg/L		269	267	249
Cr-D	mg/L	0.01	**<0.0020**	**<0.0020**	**<0.0020**
Co-D	mg/L	0.009	0.00231	0.00430	0.00267
Cu-D	mg/L		**<0.00040**	0.00072	**<0.00040**
Cu-CSR	mg/L		0.0900	0.0900	0.0900
Fe-D	mg/L		0.017	0.010	0.011
Hard-D	mg/L		914	921	858
Pb-D	mg/L		**<0.00040**	0.00053	**<0.00040**
Pb-CSR	mg/L		0.160	0.160	0.160
Mg-D	mg/L		58.9	62.0	57.5
Mn-D	mg/L		0.0717	0.0956	0.0785
Hg-D	mg/L	0.001			
Na-D	mg/L		27.2	28.6	26.1
Mo-D	mg/L	10	**<0.0020**	0.0135	**<0.0020**
Ni-D	mg/L		0.0138	0.0167	0.0140
Ni-CSR	mg/L		1.50	1.50	1.50
K-D	mg/L		4.05	4.70	4.29

Notes:
Station Type: Mine Water (MW) and Groundwater (GW).
** Calculated Parameters
Bold Red results above CSR - AL
Bold number indicates 1/2 detection limit was used.

Table 34 In-situ Minewater 18 Page(s)

	Description		In-Situ 7-South 3-Mains		
	Well ID		3M7S	3M7S	3M7S
	*Station Type		MW	MW	MW
Date			23-Apr-24	24-May-24	18-Jun-24
Parameter	Units	CSR-AW			
S-D	mg/L		278	305	274
Sb-D	mg/L	0.2	<0.0010	0.0038	<0.0010
Se-D	mg/L	0.01	<0.00020	0.00056	<0.00020
Si-D	mg/L		2.76	2.83	2.80
Sr-D	mg/L		2.56	2.58	2.40
Tl-D	mg/L	0.003	<0.000020	0.000863	<0.000020
Ti-D	mg/L	1	<0.010	0.012	<0.010
U-D	mg/L	3	<0.00020	0.00147	<0.00020
V-D	mg/L		<0.010	<0.010	<0.010
Zn-D	mg/L		<0.010	0.016	<0.010
Zn-CSR	mg/L		2.400	2.400	2.400
N-NH3	mg/L		<0.015	<0.015	<0.015
NH3-CSR	mg/L		11.3	18.5	18.5
Al-T	mg/L		0.0034	0.0101	0.0042
As-T	mg/L		0.00029	0.00026	0.00022
B-T	mg/L		0.721	0.684	0.773
Be-T	mg/L		<0.00010	<0.00010	<0.00010
Bi-T	mg/L		<0.0010	<0.0010	<0.0010
Ca-T	mg/L		244	212	208
Cd-T	mg/L		0.000021	0.000019	0.000017
Co-T	mg/L		0.00218	0.00261	0.00212
Cr-T	mg/L		<0.0010	<0.0010	<0.0010
Cu-T	mg/L		<0.00050	0.00067	<0.00050
Fe-T	mg/L		0.106	0.191	0.136
Hard-T	mg/L		821	740	731
K-T	mg/L		3.60	3.55	3.69
Li-T	mg/L		0.0636	0.0677	0.0667
Mg-T	mg/L		51.2	51.2	51.6
Mn-T	mg/L		0.0586	0.0925	0.0877
Mo-T	mg/L		<0.0010	<0.0010	<0.0010
N-T	mg/L				
Na-T	mg/L		23.5	22.5	22.5
Ni-T	mg/L		0.0126	0.0103	0.0111
P-T	mg/L				
Pb-T	mg/L		<0.00020	<0.00020	<0.00020
S-T	mg/L		246	239	243
Sb-T	mg/L		<0.00050	<0.00050	<0.00050
Se-T	mg/L		<0.00010	<0.00010	<0.00010
Si-T	mg/L		2.35	2.57	2.47
Sn-T	mg/L		<0.0050	<0.0050	<0.0050
Sr-T	mg/L		2.21	2.01	2.16
Ti-T	mg/L		<0.0050	<0.0050	<0.0050
Tl-T	mg/L		0.000011	0.000011	0.000011
U-T	mg/L		0.00017	0.00013	0.00013
V-T	mg/L		<0.0050	<0.0050	<0.0050
Zn-T	mg/L		0.0078	0.0094	0.0090
Zr-T	mg/L		<0.00010	<0.00010	<0.00010

Notes:
Station Type: Mine Water (MW) and Groundwater (GW).
** Calculated Parameters
Bold Red results above CSR - AL
Bold number indicates 1/2 detection limit was used.

Table 35 Seepage Near QU1109 (S) 1 Page(s)

EMS ID			Stn Std	Max-WQG		
Site Description	Seepage near QU1109					
Site Name	S	Std Val				
Date		Acute	Chronic	03-04-2024	07-05-2024	04-06-2024
Flow	m3/s				0.00007	0.00007
pH-F	pH Units		6.5 - 9.0	7.85	7.78	8.13
Cond-F	uS/cm			755	1277.6	1186
SO4-D	mg/L		≤ 309	150	150	150
Turb	NTU			0.60	0.55	0.54
Alk-T	mg/L			350	440	430
Acidity83	mg/L			<1.0	<1.0	<1.0
Cl-D	mg/L	≤ 600	≤ 150	35	45	45
DOC	mg/L			2.0	1.7	2.4
F-D	mg/L	≤ 1.29		0.47	0.54	0.54
Al-T	mg/L			0.0074	0.0083	0.0083
Al-T (Chronic-WQG)	mg/L			0.1900	0.1600	0.2600
As-T	mg/L		≤ 0.005	**0.0620**	**0.0737**	**0.0688**
Ba-T	mg/L			0.0451	0.0516	0.0441
B-T	mg/L		≤ 1.2	1.11	**1.53**	**1.36**
Cd-T	mg/L			<0.000010	<0.000010	<0.000010
Ca-T	mg/L			22.5	26.6	22.7
Cr-T	mg/L			<0.0010	<0.0010	<0.0010
Co-T	mg/L	≤ 0.11	≤ 0.004	<0.00020	<0.00020	<0.00020
Cu-T	mg/L			<0.00050	<0.00050	<0.00050
Hard-T	mg/L			82.2	95.0	80.1
Fe-T	mg/L	≤ 1		0.112	0.170	0.180
Pb-T	mg/L	≤ 0.01763	≤ 0.0039978	<0.00020	<0.00020	<0.00020
Mg-T	mg/L			6.32	6.96	5.70
Mn-T	mg/L	≤0.8706	≤0.737	0.0176	0.0275	0.0237
Mo-T	mg/L	≤ 2		<0.0010	<0.0010	<0.0010
Ni-T	mg/L			<0.0010	<0.0010	<0.0010
K-T	mg/L			2.83	3.52	3.14
S-T	mg/L			46.8	54.6	47.2
Se-T	mg/L			<0.00010	<0.00010	<0.00010
Si-T	mg/L			4.25	4.43	4.04
Ag-T	mg/L	≤ 0.0001		<0.000020	<0.000020	<0.000020
Na-T	mg/L			182	254	217
Sr-T	mg/L			0.322	0.387	0.363
Zn-T	mg/L	≤ 0.033	≤ 0.0075	<0.0050	<0.0050	<0.0050
Al-D	mg/L		≤ 0.442	0.0052	0.0036	0.0076
As-D	mg/L			0.0676	0.0762	0.0767
Ba-D	mg/L			0.0501	0.0536	0.0503
B-D	mg/L			1.25	1.58	1.63
Be-D	mg/L			<0.00010	<0.00010	<0.00020
Cd-D	mg/L	≤ 0.00017	≤ 0.000087	<0.000010	<0.000010	<0.000020
Ca-D	mg/L			25.0	25.3	25.4
Cr-D	mg/L			<0.0010	<0.0010	<0.0020
Co-D	mg/L			<0.00020	<0.00020	<0.00040
Cu-D	mg/L	≤0.0002	≤0.0002	<0.00020	0.00062	**<0.00040**
Hard-D	mg/L			91.5	92.6	91.6
Fe-D	mg/L	≤ 0.35		0.0952	0.101	0.125
Pb-D	mg/L			<0.00020	<0.00020	<0.00040
Mg-D	mg/L			7.06	7.12	6.81
Mn-D	mg/L			0.0179	0.0162	0.0162
Mo-D	mg/L			<0.0010	<0.0010	<0.0020
Ni-D	mg/L			<0.0010	<0.0010	<0.0020
K-D	mg/L			3.10	3.52	3.62
S-D	mg/L			52.1	53.8	52.9
Se-D	mg/L		≤0.002	<0.00010	<0.00010	<0.00020
Si-D	mg/L			4.73	4.57	4.51
Na-D	mg/L			200	243	251
Sr-D	mg/L			0.368	0.434	0.423
Zn-D	mg/L	≤ 0.033	≤ 0.0075	<0.0050	<0.0050	<0.010

Table 36 Seepage Near QU1105 (S2A) 1 Page(s)

EMS ID			Stn Std	Max-WQG		
Site Description	**Potential Seepage (S2A) near QU1105 entering river**					
Site Name	**S2A**	**Std Val**	**WQG**			
Date		**Acute**	**Chronic**	**03-04-2024**	**07-05-2024**	**04-06-2024**
Flow	m3/s			0.00215	0.0008	0.00042
pH-F	pH Units		6.5 - 9.0	7.5	7.12	7.4
Cond-F	uS/cm			641	795.1	747
SO4-D	mg/L		≤ 309	86	130	140
Turb	NTU			0.54	0.46	0.52
Alk-T	mg/L			230	250	230
Acidity83	mg/L			<1.0	4.1	1.1
Cl-D	mg/L	≤ 600	≤ 150	6.4	12	12
DOC	mg/L			2.0	1.7	1.7
F-D	mg/L	≤ 1.29		0.25	0.29	0.30
Al-T	mg/L			0.0115	0.0034	0.0034
Al-T (WQG-Chronic)	mg/L			0.1500	0.1100	0.1300
As-T	mg/L		≤ 0.005	**0.0194**	**0.0217**	**0.0290**
Ba-T	mg/L			0.0558	0.0539	0.0513
B-T	mg/L		≤ 1.2	0.452	0.544	0.544
Cd-T	mg/L			<0.000010	<0.000010	<0.000010
Ca-T	mg/L			39.2	41.0	38.1
Cr-T	mg/L			<0.0010	<0.0010	<0.0010
Co-T	mg/L	≤ 0.11	≤ 0.004	<0.00020	<0.00020	<0.00020
Cu-T	mg/L			<0.00050	<0.00050	<0.00050
Hard-T	mg/L			133	139	128
Fe-T	mg/L	≤ 1		0.158	0.187	0.267
Pb-T	mg/L	≤ 0.01763	≤ 0.0039978	<0.00020	<0.00020	<0.00020
Mg-T	mg/L			8.57	8.90	8.01
Mn-T	mg/L	≤0.8706	≤0.737	0.0464	0.120	0.135
Mo-T	mg/L	≤ 2		<0.0010	<0.0010	<0.0010
Ni-T	mg/L			<0.0010	<0.0010	<0.0010
K-T	mg/L			2.66	2.78	2.78
S-T	mg/L			30.0	43.8	43.9
Se-T	mg/L			<0.00010	<0.00010	<0.00010
Si-T	mg/L			3.28	2.87	2.97
Ag-T	mg/L	≤ 0.0001		<0.000020	<0.000020	<0.000020
Na-T	mg/L			76.6	101	97.3
Sr-T	mg/L			0.570	0.565	0.570
Zn-T	mg/L	≤ 0.033	≤ 0.0075	<0.0050	<0.0050	<0.0050
Al-D	mg/L	≤ 0.1	≤ 0.0075	0.0050	<0.0030	<0.0030
As-D	mg/L			0.0185	0.0224	0.0312
Ba-D	mg/L			0.0575	0.0598	0.0587
B-D	mg/L			0.478	0.614	0.612
Be-D	mg/L			<0.00010	<0.00010	<0.00010
Cd-D	mg/L	≤ 0.00017	≤ 0.000087	<0.000010	<0.000010	<0.000010
Ca-D	mg/L			39.5	43.7	41.8
Cr-D	mg/L			<0.0010	<0.0010	<0.0010
Co-D	mg/L			<0.00020	<0.00020	<0.00020
Cu-D	mg/L	≤0.0002	≤0.0002	**0.00021**	<0.00020	<0.00020
Hard-D	mg/L			136	149	142
Fe-D	mg/L	≤ 0.35		0.119	0.194	0.264
Pb-D	mg/L			<0.00020	<0.00020	<0.00020
Mg-D	mg/L			9.16	9.67	9.15
Mn-D	mg/L			0.0474	0.126	0.149
Mo-D	mg/L			<0.0010	<0.0010	<0.0010
Ni-D	mg/L			<0.0010	<0.0010	<0.0010
K-D	mg/L			2.73	3.05	2.98
S-D	mg/L			30.7	47.0	49.3
Se-D	mg/L		≤0.002	<0.00010	<0.00010	<0.00010
Si-D	mg/L			3.35	3.31	3.12
Na-D	mg/L			78.6	107	111
Sr-D	mg/L			0.589	0.674	0.663
Zn-D	mg/L	≤ 0.033	≤ 0.0075	<0.0050	<0.0050	<0.0050

Table 37 Seepage Near QU1105 (S2B) 1 Page(s)

EMS ID		Stn Std	Max-WQG	
Site Description	Potential Seepage (S2B) near QU1105 entering river			
Site Name	S2B	Std Val	WQG	
Date		Acute	Chronic	03-04-2024
Flow	m3/s			0.00051
pH-F	pH Units		6.5 - 9.0	7.06
Cond-F	uS/cm			709
SO4-D	mg/L		≤ 309	95
Turb	NTU			0.96
Alk-T	mg/L			250
Acidity83	mg/L			<1.0
Cl-D	mg/L	≤ 600	≤ 150	6.2
DOC	mg/L			1.7
F-D	mg/L	≤ 1.29		0.33
Al-T	mg/L		0.11	0.0067
As-T	mg/L		≤ 0.005	**0.0292**
Ba-T	mg/L			0.0576
B-T	mg/L		≤ 1.2	0.521
Cd-T	mg/L			<0.000010
Ca-T	mg/L			41.4
Cr-T	mg/L			<0.0010
Co-T	mg/L	≤ 0.11	≤ 0.004	<0.00020
Cu-T	mg/L			<0.00050
Hard-T	mg/L			142
Fe-T	mg/L	≤ 1		0.276
Pb-T	mg/L	≤ 0.01763	≤ 0.0039978	<0.00020
Mg-T	mg/L			9.32
Mn-T	mg/L	≤0.8706	≤0.737	0.0764
Mo-T	mg/L	≤ 2		<0.0010
Ni-T	mg/L			<0.0010
K-T	mg/L			3.02
S-T	mg/L			33.1
Se-T	mg/L			<0.00010
Si-T	mg/L			3.33
Ag-T	mg/L	≤ 0.0001		<0.000020
Na-T	mg/L			84.0
Sr-T	mg/L			0.640
Zn-T	mg/L	≤ 0.033	≤ 0.0075	<0.0050
Al-D	mg/L	≤ 0.1	≤ 0.0075	0.0038
As-D	mg/L			0.0269
Ba-D	mg/L			0.0613
B-D	mg/L			0.547
Be-D	mg/L			<0.00010
Cd-D	mg/L	≤ 0.00017	≤ 0.000087	<0.000010
Ca-D	mg/L			43.6
Cr-D	mg/L			<0.0010
Co-D	mg/L			<0.00020
Cu-D	mg/L	≤0.0002	≤0.0002	<0.00020
Hard-D	mg/L			151
Fe-D	mg/L	≤ 0.35		0.203
Pb-D	mg/L			<0.00020
Mg-D	mg/L			10.2
Mn-D	mg/L			0.0765
Mo-D	mg/L			<0.0010
Ni-D	mg/L			<0.0010
K-D	mg/L			3.20
S-D	mg/L			35.0
Se-D	mg/L		≤0.002	<0.00010
Si-D	mg/L			3.46
Na-D	mg/L			89.5
Sr-D	mg/L			0.701
Zn-D	mg/L	≤ 0.033	≤ 0.0075	<0.0050

Table 38 No Name Lake Depth Profile 1 Page(s)

EMS ID: E217018
Site NAME: NO NAME LAKE (NNL)

NO NAME LAKE DEPTH PROFILING SPRING

Sample Date	10-Apr						17-Apr						24-Apr						01-May						08-May					
Parameter	TEMP.	pH	COND.	% Sat.	D.O.	ORP	TEMP.	pH	COND.	% Sat.	D.O.	ORP	TEMP.	pH	COND.	% Sat.	D.O.	ORP	TEMP.	pH	COND.	% Sat.	D.O.	ORP	TEMP.	pH	COND.	% Sat.	D.O.	*ORP
Sample Depth (m)	°C		µS/cm		mg/L	mV	°C		µS/cm		mg/L	mV	°C		µS/cm		mg/L	mV	°C		µS/cm		mg/L	mV	°C		µS/cm		mg/L	mV
1	7.9	6.54	27.8	95.0	11.27	170.9	9.4	6.81	27.7	97.4	11.13	192.6	11.1	6.63	29.2	97.4	10.71	203.2	11.4	6.90	29.6	95.1	10.40	182.4	12.0	7.24	31.7	95.6	10.31	103.6
2	7.9	6.52	27.8	95.0	11.27	171.2	9.4	6.73	27.6	96.9	11.09	194.4	11.1	6.55	29.2	96.9	10.67	206.9	11.3	6.77	29.6	94.8	10.39	186.0	12.0	7.12	31.6	95.5	10.30	106.2
3	7.8	6.44	27.8	94.6	11.25	175.3	8.7	6.69	27.7	95.4	11.13	194.4	10.7	6.53	29.3	96.0	10.66	207.9	10.8	6.70	29.6	93.7	10.37	188.0	11.3	7.04	32.1	93.6	10.26	106.6
4	6.6	6.39	28.0	90.4	11.09	176.8	7.6	6.63	27.6	92.4	11.07	195.8	9.7	6.49	29.4	93.5	10.65	209.8	10.1	6.66	29.9	92.0	10.35	190.8	10.7	6.95	31.8	91.4	10.16	108.1
5	6.1	6.31	28.3	88.9	11.04	179.2	6.3	6.56	27.6	88.9	10.96	197.0	6.8	6.44	29.3	86.9	10.60	210.2	8.1	6.55	29.2	87.5	10.33	194.4	9.0	6.85	31.6	87.5	10.14	111.1
6	5.5	6.29	28.8	86.6	10.91	181.5	5.6	6.47	28.2	85.4	10.96	198.9	5.9	6.31	29.7	83.3	10.41	213.2	6.6	6.48	29.6	84.7	10.37	196.3	7.1	6.73	31.1	84.3	10.21	114.0
7	5.2	6.24	29.2	85.3	10.85	182.9	5.4	6.40	28.4	84.2	10.64	201.4	5.7	6.27	29.6	82.5	10.33	215.4	5.9	6.39	29.6	82.5	10.28	199.1	6.5	6.58	31.2	81.9	10.09	116.8
8	5.1	6.21	29.2	84.9	10.82	183.8	5.3	6.28	28.8	83.0	10.53	204.2	5.7	6.23	29.6	82.0	10.33	217.5	5.6	6.33	29.8	80.3	10.09	202.3	6.1	6.45	31.1	80.8	10.04	119.4
9	5.0	6.21	29.3	84.7	10.80	184.1	5.2	6.23	29.0	82.2	10.45	206.9	5.5	6.20	29.9	81.2	81.10	219.3	5.5	6.27	29.9	79.5	10.03	204.9	5.9	6.36	31.2	79.6	9.94	121.1
10	5.0	6.19	29.3	84.5	10.79	185.0	5.2	6.19	29.1	81.8	10.40	208.4	5.4	6.16	29.9	80.6	10.18	221.9	5.5	6.25	29.9	79.1	9.98	204.3	5.8	6.29	31.2	79.0	9.87	123.3
11	5.0	6.18	29.6	84.2	10.76	185.6	5.2	6.15	29.1	81.5	10.37	210.6	5.4	6.15	29.8	80.4	10.15	222.7	5.4	6.21	30.0	78.6	9.93	206.9	5.8	6.22	31.2	78.8	9.85	124.2
12	5.0	6.18	29.6	84.0	10.73	185.6	5.2	6.12	29.1	81.4	10.35	211.4	5.4	6.14	30.0	79.8	10.09	225.6	5.3	6.17	30.1	78.2	9.90	208.2	5.7	6.16	31.3	78.4	9.83	126.0
13																														* Collected May 16
1m from Bottom (1MB)	1MB = 12.0m						1MB = 12.0m						1MB = 12.0m																	

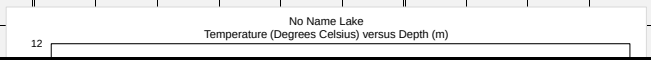
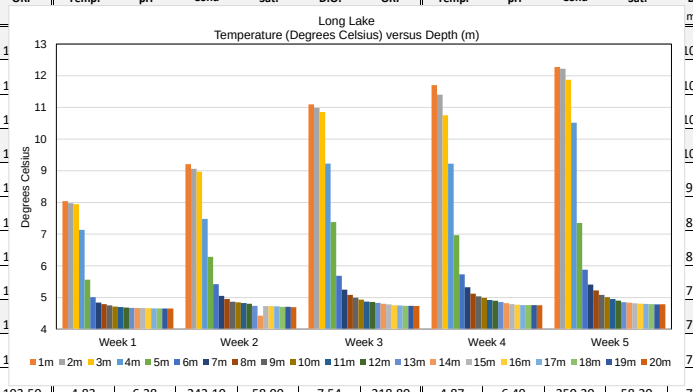


Table 39 Long Lake Depth Profile 1 Page(s)

EMS ID: E206619
Site NAME: LONG LAKE (LLM)

LONG LAKE DEPTH PROFILING SPRING

Sample Date	10-Apr						17-Apr						24-Apr						01-May						08-May					
Parameter	Temp.	pH	Cond	Sat.	D.O.	ORP	Temp.	pH	Cond	Sat.	D.O.	ORP	Temp.	pH	Cond	Sat.	D.O.	ORP	Temp.	pH	Cond	Sat.	D.O.	ORP	Temp.	pH	Cond	Sat.	D.O.	ORP
Sample Depth (m)	Celcius		µS/cm	%	mg/L												mg/L	mV	Celcius		µS/cm	%	mg/L	mV	Celcius		µS/cm	%	mg/L	mV
1	8.04	6.93	133.50	9.20	11.26	1											10.57	231.50	11.70	7.09	146.60	96.00	10.40	186.30	12.27	6.85	148.00	97.00	10.37	213.30
2	7.98	6.95	133.30	95.10	11.27	1											10.60	229.00	11.41	7.13	145.10	95.00	10.42	185.30	12.22	6.90	148.20	97.00	10.36	211.80
3	7.95	6.95	134.50	94.90	11.25	1											10.59	227.00	10.75	7.11	154.40	93.20	10.35	186.50	11.87	6.91	149.10	95.50	10.35	210.80
4	7.14	6.84	216.30	87.80	10.63	1											10.37	229.60	9.22	7.03	192.60	88.10	10.09	190.80	10.52	6.88	189.50	93.20	10.26	213.40
5	5.56	6.79	240.20	77.70	9.72	1											9.65													216.10
6	5.01	6.75	248.10	70.90	9.00	1											8.79													216.70
7	4.84	6.70	250.20	65.90	8.42	1											8.20													219.10
8	4.79	6.67	250.60	63.90	8.20	1											7.88													220.10
9	4.75	6.64	251.70	62.80	8.06	1											7.61													220.60
10	4.72	6.61	252.60	61.90	7.95	1											7.51													222.20
11	4.70	6.60	252.60	61.40	7.90	193.50	4.83	6.38	243.10	58.90	7.54	218.80	4.87	6.49	250.30	58.20	7.45													223.30
12	4.68	6.58	253.20	60.80	7.82	194.40	4.80	6.38	243.70	58.30	7.47	218.80	4.86	6.48	250.90	57.50	7.36													224.40
13	4.67	6.56	253.40	60.10	6.55	195.40	4.74	6.38	243.90	57.90	7.44	218.60	4.83	6.47	250.80	56.90	7.30													225.70
14	4.67	6.54	253.70	59.60	7.66	196.10	4.43	6.38	243.50	57.80	7.43	218.40	4.80	6.46	251.10	56.50	7.23													227.70
15	4.67	6.52	253.80	59.10	7.60	196.80	4.73	6.38	243.00	57.20	7.35	218.20	4.78	6.46	251.20	55.90	7.18													228.10
16	4.67	6.52	254.10	58.90	7.58	197.00	4.73	6.38	243.90	56.90	7.32	218.00	4.76	6.45	251.80	55.10	7.08	243.40	4.77	6.59	251.70	54.10	6.95	206.60	4.81	6.42	262.70	51.90	6.66	228.60
17	4.66	6.51	254.30	58.30	7.53	197.40	4.72	6.38	244.30	56.40	7.25	217.90	4.75	6.44	251.70	54.30	6.97	243.50	4.76	6.57	252.00	53.90	6.92	207.40	4.80	6.41	262.60	51.40	6.61	229.20
18	4.66	6.50	254.30	58.10	7.48	197.70	4.71	6.38	244.50	55.40	7.12	217.70	4.74	6.44	252.00	53.70	6.89	243.50	4.76	6.56	251.90	52.70	6.80	208.10	4.79	6.40	262.80	50.80	6.52	229.60
19	4.65	6.50	254.60	57.70	7.43	198.00	4.71	6.38	244.50	55.40	7.13	217.50	4.74	6.44	251.80	53.10	6.82	243.40	4.76	6.66	252.10	52.00	6.68	208.80	4.79	6.40	263.20	49.50	6.41	229.90
20	4.65	6.49	255.10	56.40	7.26	198.40	4.69	6.38	244.30	55.30	7.12	217.40	4.74	6.44	251.80	52.70	6.77	243.40	4.76	6.53	251.90	51.60	6.63	209.70	4.79	6.37	263.10	48.00	6.17	230.30
1m from Bottom (1MB)	1MB = 20m						1MB = 20m						1MB = 20m						1MB = 20m						1MB = 20m					



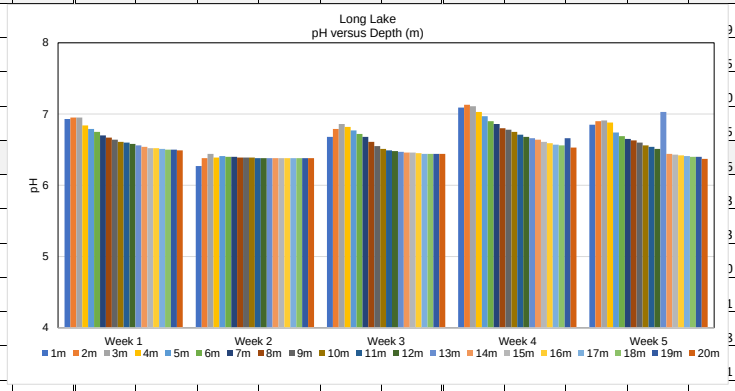


Table 40 Middle Quinsam Lake Depth Profile 1 Page(s)

EMS ID E206618

Site NAME: MIDDLE QUINSAM LAKE (MQL)

MIDDLE QUINSAM LAKE DEPTH PROFILING SPRING

Sample Date	10-Apr						17-Apr						24-Apr						01-May						08-May					
Parameter	TEMP.	pH	COND.	% Sat.	D.O.	ORP	TEMP.	pH	COND.	% Sat.	D.O.	ORP	TEMP.	pH	COND.	% Sat.	D.O.	ORP	TEMP.	pH	COND.	% Sat.	D.O.	ORP	TEMP.	pH	COND.	% Sat.	D.O.	ORP
Sample Depth (m)	°C		µS/cm		mg/L	mV	°C		µS/cm		mg/L	mV	°C		µS/cm		mg/L	mV	°C		µS/cm		mg/L	mV	°C		µS/cm		mg/L	mV
1	8.3	7.18	128.6	98.1	11.54	161	9.5	7.18	110.7	98.6	11.25	189.4	11.6	7.22	108.8	99.7	10.85	218.7	12.1	7.45	116.6	97.8	10.50	187.0	12.5	7.22	124.2	98.2	10.46	201.4
2	8.3	7.28	128.6	98.0	11.54	160.6	9.5	7.23	110.4	98.5	11.26	187.8	11.5	7.24	108.7	99.6	10.85	218.9	11.6	7.46	116.3	96.8	10.52	185.1	12.4	7.29	124.2	98.1	10.48	200.2
3	8.2	7.29	128.5	97.7	11.53	160.1	9.4	7.27	110.3	98.4	11.26	187.3	11.4	7.26	108.7	99.3	10.84	218.2	11.4	7.47	116.5	96.2	10.51	185.0	12.3	7.30	125.5	98.1	10.50	198.2
4	8.1	7.32	128.7	97.6	11.53	160.1	9.4	7.27	110.5	98.3	11.26	186.7	11.3	7.27	109.0	98.6	10.80	217.6	11.3	7.47	116.2	95.8	10.51	185.6	12.1	7.33	125.5	97.5	10.50	197.3
5	7.9	7.32	128.4	97.0	11.51	160.1	9.1	7.29	109.3	97.6	11.24	186.2	10.4	7.30	109.8	97.7	10.94	217.2	11.1	7.47	116.5	95.3	10.49	187.0	11.7	7.33	123.3	96.7	10.50	197.2
6	7.7	7.33	128.1	96.5	11.49	160	8.8	7.29	116.4	97.6	11.33	186.0	9.9	7.31	112.6	97.4	11.05	217.0	10.8	7.46	116.8	95.3	10.54	185.6	11.1	7.33	121.8	96.4	10.62	196.9
7	7.5	7.32	128.2	95.8	11.50	160.3	8.1	7.3	122.7	96.2	11.41	186.3	9.1	7.31	117.7	96.5	11.20	217.5	9.6	7.45	117.3	95.7	10.93	185.9	10.8	7.30	121.6	96.4	10.69	197.7
8	7.1	7.31	127.5	95.1	11.52	160.6	7.3	7.29	122.6	94.9	11.43	186.7	8.0	7.30	122.8	95.6	11.32	217.9	8.3	7.42	122.5	94.8	11.15	187.0	9.3	7.29	126.1	95.3	11.02	198.4
9	6.6	7.30	126.0	94.2	11.56	160.8	6.7	7.27	121.9	93.6	11.43	187.1	7.1	7.23	125.4	93.0	11.26	218.9	7.6	7.40	125.1	93.7	11.21	188.2	8.1	7.27	130.3	93.0	11.12	199.4
10	6.0	7.28	125.0	92.4	11.53	161.7	6.5	7.24	121.3	92.8	11.39	187.6	6.9	7.23	125.8	92.3	11.23	219.9	7.0	7.36	126.3	91.3	11.07	189.4	7.5	7.25	131.6	92.0	11.04	199.7
11	5.7	7.24	125.0	91.4	11.49	162.8	6.2	7.21	121.5	91.3	11.31	188.2	6.7	7.22	126.1	91.3	11.16	220.5	6.7	7.32	127.5	190.5	10.82	190.6	7.3	7.22	132.0	90.7	10.92	200.6
12	5.6	7.21	125.0	91.0	11.45	163.6	6.1	7.18	121.6	90.3	11.22	189.6	6.6	7.20	126.9	90.5	11.11	221.0	6.6	7.29	127.7	191.4	10.73	191.4	7.1	7.18	132.8	88.5	10.71	201.6
13	5.5	7.19	127.0	90.1	11.36	164.4	5.9	7.14	122.2	88.8	11.07	191.0	6.5	7.19	126.7	90.0	11.05	221.5	6.6	7.26	127.9	192.3	10.62	192.3	6.9	7.15	133.3	86.8	10.53	202.5
14							5.9	7.09	122.1	88.4	11.04	192.5	6.5	7.16	127.5	88.8	10.91	222.6												
1m from Bottom (BS)	BS=13.0m						BS=14.0m						BS=14.0m						BS=13.0m						BS=13.0m					

Appendix 1 - Tables

Table 41 LQL Depth Profile 1 Page(s)

EMS ID E292118

LOWER QUINSAM LAKE DEPTH PROFILING SPRING

Site NAME: LOWER QUINSAM LAKE (LQL)

Sample Date	10-Apr						17-Apr						25-Apr						01-May						08-May					
Parameter	TEMP.	pH	COND.	% Sat.	D.O.	ORP	TEMP.	pH	COND.	% Sat.	D.O.	ORP	TEMP.	pH	COND.	% Sat.	D.O.	ORP	TEMP.	pH	COND.	% Sat.	D.O.	ORP	TEMP.	pH	COND.	% Sat.	D.O.	ORP
Sample Depth (m)	°C		µS/cm		mg/L	mV	°C		µS/cm		mg/L	mV	°C		µS/cm		mg/L	mV	°C		µS/cm		mg/L	mV	°C		µS/cm		mg/L	mV
1	8.1	7.31	94.1	99.9	11.81	160.1	9.5	7.30	91.3	101.1	11.54	168.6	11.0	.7.36	98.0	100.5	11.08	202.8	11.3	7.40	96.3	99.7	10.95	190.7	13.3	7.33	101.6	102.1	10.73	170.0
2	8.0	7.31	93.0	99.7	11.82	160.2	8.8	7.29	91.3	99.8	11.57	167.2	10.7	7.37	99.2	99.8	11.05	202.6	10.9	7.38	96.3	98.3	10.87	190.9	12.2	7.31	101.7	100.4	10.77	171.6
3	7.7	7.31	96.2	98.8	11.79	159.8	8.3	7.30	92.6	97.6	11.48	167.0	10.3	7.33	100.4	97.5	10.94	204.3	10.3	7.37	96.2	97.3	10.89	191.3	11.4	7.30	102.1	98.6	10.75	172.2
4	7.5	7.30	93.7	98.0	11.75	160.7	8.1	7.27	93.7	96.6	11.41	167.6	9.7	7.31	99.7	97.5	11.10	204.2	10.1	7.34	96.8	96.2	10.85	192.9	11.1	7.28	101.8	97.5	10.74	173.3
5	7.3	7.29	91.7	97.2	11.70	160.3	8.0	7.27	93.8	96.0	11.36	167.7	9.5	7.31	99.2	97.2	11.09	204.8	9.8	7.33	96.1	95.3	10.81	193.7	10.7	7.26	101.9	96.4	10.72	175.7
6	7.3	7.29	91.8	96.8	11.67	160.4	8.0	7.26	93.7	95.5	11.31	169.0	8.9	7.31	96.4	95.8	11.12	204.3	9.7	7.33	96.8	94.6	10.75	193.5	10.5	7.25	101.8	95.3	10.64	174.3
7	7.3	7.29	91.7	96.5	11.63	160.5	8.0	7.27	93.7	95.1	11.27	168.0	8.6	7.29	96.2	95.1	11.08	204.9	9.5	7.29	96.2	94.0	10.73	193.0	10.1	7.23	101.2	94.3	10.62	175.3
8	7.2	7.28	91.1	96.2	11.61	160.8	7.8	7.25	93.9	94.5	11.23	168.1	8.4	7.24	95.9	94.0	11.02	206.6	9.2	7.29	96.0	93.2	10.72	194.2	9.4	7.20	100.5	92.6	10.60	176.5
9	7.2	7.27	90.8	95.9	11.59	160.9	7.7	7.24	93.9	93.8	11.19	168.6	8.2	7.24	95.8	93.0	10.96	206.5	9.1	7.26	95.6	92.7	10.70	195.0	9.1	7.14	100.4	91.1	10.52	177.2
10	7.1	7.27	90.8	95.6	11.57	161.2	7.6	7.23	93.6	93.1	11.14	168.8	8.1	7.20	95.8	92.3	10.90	208.0	8.7	7.24	95.8	91.6	10.67	195.4	8.7	7.13	100.0	89.4	10.41	178.3
11	7.1	7.24	90.7	95.3	11.54	162.3	7.6	7.21	93.6	92.9	11.11	169.3	8.0	7.17	96.1	91.7	10.85	209.6	8.4	7.22	96.1	90.5	10.62	196.1	8.6	7.10	100.0	88.5	10.33	179.7
12	7.0	7.25	90.5	94.9	11.51	162.7	7.6	7.19	93.5	92.7	11.09	169.8	8.0	7.15	96.3	91.5	10.83	209.9	8.2	7.20	96.0	89.5	10.57	196.5	8.5	7.08	100.1	87.7	10.27	180.6
13	6.9	7.23	91.1	94.5	11.48	162.9	7.5	7.20	93.5	92.1	11.06	169.9	8.0	7.14	96.4	91.1	10.79	210.5	8.1	7.17	95.9	88.5	10.46	197.7	8.3	7.05	100.2	86.2	10.19	181.7
14	6.8	7.21	90.3	93.8	11.42	163.1	7.3	7.19	93.0	91.0	10.94	170.3	7.9	7.13	96.4	90.6	10.75	211.1	8.0	7.15	96.1	87.5	10.38	198.4	8.1	7.01	100.3	83.6	9.88	182.2
15	6.8	7.20	89.9	93.2	11.38	163.6	7.2	7.15	92.3	89.8	10.84	171.2	7.7	7.10	96.4	89.4	10.65	212.3	7.9	7.13	96.2	85.8	10.22	199.0	8.0	6.98	100.4	82.3	9.75	183.2
16	6.7	7.19	90.6	91.9	11.23	163.2	7.1	7.11	92.0	88.7	10.72	172.8	7.6	7.07	96.6	87.8	10.47	213.8	7.8	7.11	96.4	84.6	10.08	199.3	7.9	6.94	100.4	80.1	9.53	184.1
17	6.5	7.18	91.1	90.5	11.10	164.2	7.1	7.08	91.9	88.0	10.65	173.6	7.6	7.04	96.7	86.8	10.38	214.6	7.8	7.10	96.4	83.6	9.97	199.1	7.8	6.90	100.9	77.4	9.27	182.3
1m from Bottom (BS)	**BS=17.0m**						**BS=17.0m**						**BS=17.0m**						**BS=17.0m**						**BS=17.0m**					

Table 42 Spring Lakes 17 Page(s)

EMS ID		E217018											
StnName		No Name Lake 1M											Count of results
StnCode		NNL1								Water Quality Guidelines			exceeding
		10-Apr-24	17-Apr-24	24-Apr-24	1-May-24	8-May-24	Count	Max	5 in 30 Ave	Chronic	Acute	90th Percentile	standard
SO4-D	mg/L	<1.0	<1.0	1.2	1.2	1.2	5	1.2	0.92	128		1.2	0
Turb	NTU	0.32	0.29	0.35	0.44	0.21	5	0.44	0.32			0.4	0
Alk-T	mg/L	11	11	11	11	11	5	11	11.0			11	0
Al-T	mg/L	0.0417	0.0383	0.0354	0.0361	0.0297	5	0.0417	0.0362	*		0.0403	0
As-T	mg/L	0.00020	0.00022	0.00017	0.00023	0.00021	5	0.00023	0.00021	0.005		0.00023	0
B-T	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250	1.2		0.025	0
Ba-T	mg/L	<0.0010	0.0010	<0.0010	0.0010	<0.0010	5	0.0010	0.00070	1		0.001	0
Cd-T	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050			0.000005	0
Ca-T	mg/L	3.09	3.14	3.19	3.36	3.09	5	3.36	3.17			3.29	0
Cr-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Co-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.11	0.0001	0
Cu-T	mg/L	0.00052	0.00054	<0.00050	<0.00050	<0.00050	5	0.00054	0.000362			0.000532	0
Fe-T	mg/L	0.045	0.040	0.041	0.049	0.045	5	0.049	0.044		1	0.047	0
Hard-T	mg/L	10.5	10.8	10.8	11.4	10.4	5	11.4	10.8			11.2	0
Pb-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.0176	0.0001	0
Mg-T	mg/L	0.682	0.725	0.689	0.737	0.659	5	0.737	0.698			0.732	0
Mn-T	mg/L	0.0031	0.0036	0.0038	0.0041	0.0036	5	0.0041	0.0036	0.737	0.8706	0.004	0
P-T	mg/L	0.0037	0.0064	0.0043	0.0053	<0.0030	5	0.0064	0.00424	0.015		0.00596	0
Mo-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	7.6	46	0.0005	0
Ni-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	0.025		0.0005	0
K-T	mg/L	0.053	0.056	<0.050	0.053	<0.050	5	0.056	0.0424			0.0548	0
S-T	mg/L	<3.0	<3.0	<3.0	<3.0	<3.0	5	<3.0	1.50			1.5	0
Se-T	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050	0.002		0.00005	0
Ag-T	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100	0.00005	0.0001	0.00001	0
Na-T	mg/L	0.900	0.982	0.957	0.998	0.897	5	0.998	0.947			0.992	0
Sr-T	mg/L	0.0091	0.0094	0.0099	0.0099	0.009	5	0.0099	0.0095			0.0099	0
Zn-T	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0
Al-D	mg/L	0.0406	0.0374	0.0351	0.0363	0.03	5	0.0406	0.0359			0.0393	0
As-D	mg/L	0.00021	0.00022	0.00021	0.00023	0.00024	5	0.00024	0.00022			0.00024	0
Ba-D	mg/L	0.0010	0.0010	0.0011	0.0010	0.0011	5	0.0011	0.0010			0.0011	0
B-D	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250			0.025	0
Cd-D	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050	0.000087	0.00017	0.000005	0
Ca-D	mg/L	3.52	3.46	3.65	3.46	3.65	5	3.65	3.55			3.65	0
Cl-D	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	5	<1.0	0.50	150	600	0.5	0
Cr-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Co-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0
Cu-D	mg/L	0.00049	0.00050	0.00044	0.00042	0.00046	5	0.00050	0.00046	*	*	0.0005	5
DOC	mg/L	4.0	3.4	3.2	3.5	3.5	5	4.0	3.5			3.8	0
Hard-D	mg/L	11.8	11.8	12.3	11.8	12.4	5	12.4	12.0			12.4	0
Fe-D	mg/L	0.0373	0.0354	0.0377	0.0419	0.0475	5	0.0475	0.0400		0.35	0.0453	0
Pb-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0
Mg-D	mg/L	0.739	0.771	0.768	0.770	0.808	5	0.808	0.771			0.793	0
Mn-D	mg/L	0.0031	0.0038	0.0038	0.0044	0.0043	5	0.0044	0.0039			0.0044	0
Mo-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Ni-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Ag-D	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100			0.000010	0
K-D	mg/L	0.054	0.053	0.054	0.059	0.05	5	0.059	0.054			0.057	0
S-D	mg/L	<3.0	<3.0	<3.0	<3.0	<3.0	5	<3.0	1.50			1.5	0
Se-D	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050			0.00005	0
Na-D	mg/L	1.04	1.07	1.04	1.06	1.05	5	1.07	1.05			1.07	0
Sr-D	mg/L	0.0100	0.0101	0.011	0.0113	0.0104	5	0.0113	0.0106			0.0112	0
Zn-D	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0
N-NO23	mg/L	<0.020	<0.020	0.022	<0.020	<0.020	5	0.022	0.0124			0.0172	0
Chlr-a	ug/L					0.81	1	0.81	0.81			0.81	0

Notes: *Calculated guideline. Refer to Exccedance Tables.
Factor applied to less-than results when calculating statistics: 0.5

Table 42 Spring Lakes 17 Page(s)

EMS ID		E217018								Water Quality Guidelines			
StnName		No Name Lake 4M											Count of results
StnCode		NNL4											exceeding
		10-Apr-24	17-Apr-24	24-Apr-24	1-May-24	8-May-24	Count	Max	5 in 30 Ave	Chronic	Acute	90th Percentile	standard
SO4-D	mg/L	<1.0	<1.0	1.2	1.3	1.2	5	1.3	0.94	128		1.26	0
Turb	NTU	0.45	0.29	0.27	0.44	0.26	5	0.45	0.34			0.45	0
Alk-T	mg/L	10	11	11	11	12	5	12	11.0			11.6	0
Al-T	mg/L	0.0424	0.0406	0.0382	0.0375	0.0336	5	0.0424	0.0385	*		0.0417	0
As-T	mg/L	0.00020	0.00022	0.00019	0.00023	0.00023	5	0.00023	0.00021	0.005		0.00023	0
B-T	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250	1.2		0.025	0
Ba-T	mg/L	0.0010	<0.0010	0.0011	0.0010	<0.0010	5	0.0011	0.00082	1		0.00106	0
Cd-T	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050			0.000005	0
Ca-T	mg/L	3.16	3.17	3.39	3.37	3.3	5	3.39	3.28			3.38	0
Cr-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Co-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.11	0.0001	0
Cu-T	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	5	<0.00050	0.000250			0.00025	0
Fe-T	mg/L	0.047	0.043	0.046	0.050	0.048	5	0.050	0.047		1	0.049	0
Hard-T	mg/L	10.7	10.8	11.4	11.5	11.2	5	11.5	11.1			11.5	0
Pb-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.0176	0.0001	0
Mg-T	mg/L	0.676	0.708	0.718	0.734	0.715	5	0.734	0.710			0.728	0
Mn-T	mg/L	0.0031	0.0033	0.0041	0.0040	0.0039	5	0.0041	0.0037	0.737	0.8706	0.0041	0
P-T	mg/L	0.0066	0.0047	0.0043	0.0058	0.007	5	0.007	0.0057	0.015		0.0068	0
Mo-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	7.6	46	0.0005	0
Ni-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	0.025		0.0005	0
K-T	mg/L	0.051	<0.050	0.05	0.051	0.051	5	0.051	0.0456			0.051	0
S-T	mg/L	<3.0	<3.0	<3.0	<3.0	<3.0	5	<3.0	1.50			1.5	0
Se-T	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050	0.002		0.000050	0
Ag-T	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100	0.00005	0.0001	0.000010	0
Na-T	mg/L	0.925	0.955	0.978	0.989	0.954	5	0.989	0.960			0.985	0
Sr-T	mg/L	0.0092	0.0094	0.0102	0.0101	0.0096	5	0.0102	0.0097			0.0102	0
Zn-T	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0
Al-D	mg/L	0.0399	0.0390	0.0371	0.0370	0.0305	5	0.0399	0.0367			0.0395	0
As-D	mg/L	0.00020	0.00022	0.00023	0.00023	0.00023	5	0.00023	0.00022			0.00023	0
Ba-D	mg/L	0.0010	0.0011	0.0011	0.0011	0.001	5	0.0011	0.0011			0.0011	0
B-D	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250			0.025	0
Cd-D	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050	0.000087	0.00017	0.000005	0
Ca-D	mg/L	3.54	3.56	3.73	3.76	3.68	5	3.76	3.65			3.75	0
Cl-D	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	5	<1.0	0.50	150	600	0.5	0
Cr-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Co-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0
Cu-D	mg/L	0.00047	0.00055	0.00045	0.00044	0.00044	5	0.00055	0.00047	*	*	0.00052	5
DOC	mg/L	3.7	3.7	3.3	3.3	3.2	5	3.7	3.4			3.7	0
Hard-D	mg/L	11.9	12.1	12.5	12.7	12.6	5	12.7	12.4			12.7	0
Fe-D	mg/L	0.0331	0.0347	0.0398	0.0405	0.0478	5	0.0478	0.0392		0.35	0.0449	0
Pb-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0
Mg-D	mg/L	0.736	0.771	0.782	0.797	0.821	5	0.821	0.781			0.811	0
Mn-D	mg/L	0.0029	0.0032	0.004	0.0041	0.0043	5	0.0043	0.0037			0.0042	0
Mo-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Ni-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Ag-D	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100			0.000010	0
K-D	mg/L	0.051	0.055	0.057	0.067	<0.050	5	0.067	0.0510			0.063	0
S-D	mg/L	<3.0	<3.0	<3.0	<3.0	<3.0	5	<3.0	1.50			1.5	0
Se-D	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050			0.000050	0
Na-D	mg/L	1.03	1.06	1.05	1.05	1.03	5	1.06	1.04			1.06	0
Sr-D	mg/L	0.0099	0.0103	0.0113	0.0110	0.0103	5	0.0113	0.0106			0.0112	0
Zn-D	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0
N-NO23	mg/L	<0.020	<0.020	0.041	<0.020	<0.020	5	0.041	0.0162			0.0286	0

Notes: *Calculated guideline. Refer to Exccedance Tables.

Factor applied to less-than results when calculating statistics: 0.5

Table 42 Spring Lakes 17 Page(s)

EMS ID		E217018								Water Quality Guidelines			
StnName		No Name Lake 9M											Count of results
StnCode		NNL9											exceeding
		10-Apr-24	17-Apr-24	24-Apr-24	1-May-24	8-May-24	Count	Max	5 in 30 Ave	Chronic	Acute	90th Percentile	standard
SO4-D	mg/L	2.1	1.9	2.4	2.3	2.2	5	2.4	2.2	128		2.4	0
Turb	NTU	0.62	0.68	0.38	0.38	0.26	5	0.68	0.46			0.66	0
Alk-T	mg/L	12	10	10	10	10	5	12	10.4			11.2	0
Al-T	mg/L	0.0446	0.0461	0.0451	0.0417	0.0404	5	0.0461	0.0436	*		0.0457	0
As-T	mg/L	0.00017	0.00020	0.00015	0.00019	0.00019	5	0.00020	0.00018	0.005		0.0002	0
B-T	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250	1.2		0.025	0
Ba-T	mg/L	<0.0010	<0.0010	0.001	0.0010	0.001	5	0.001	0.00080	1		0.001	0
Cd-T	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050			0.000005	0
Ca-T	mg/L	3.19	3.28	3.44	3.18	3.28	5	3.44	3.27			3.38	0
Cr-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Co-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.11	0.0001	0
Cu-T	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	5	<0.00050	0.000250			0.00025	0
Fe-T	mg/L	0.054	0.059	0.058	0.052	0.051	5	0.059	0.055		1	0.059	0
Hard-T	mg/L	10.7	11.1	11.4	10.7	11	5	11.4	11.0			11.3	0
Pb-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.0176	0.0001	0
Mg-T	mg/L	0.667	0.703	0.683	0.672	0.678	5	0.703	0.681			0.695	0
Mn-T	mg/L	0.0036	0.0043	0.0043	0.0040	0.0038	5	0.0043	0.0040	0.737	0.8706	0.0043	0
P-T	mg/L	0.0043	0.0041	0.0047	0.0038	0.0065	5	0.0065	0.0047	0.015		0.0058	0
Mo-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	7.6	46	0.0005	0
Ni-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	0.025		0.0005	0
K-T	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250			0.025	0
S-T	mg/L	<3.0	<3.0	<3.0	<3.0	<3.0	5	<3.0	1.50			1.5	0
Se-T	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050	0.002		0.000050	0
Ag-T	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100	0.00005	0.0001	0.000010	0
Na-T	mg/L	0.863	0.911	0.938	0.909	0.906	5	0.938	0.905			0.927	0
Sr-T	mg/L	0.0098	0.0103	0.0107	0.0100	0.0099	5	0.0107	0.0101			0.0105	0
Zn-T	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0
Al-D	mg/L	0.0506	0.0426	0.0414	0.0384	0.0352	5	0.0506	0.0416			0.0474	0
As-D	mg/L	0.00019	0.00020	0.00019	0.00021	0.0002	5	0.00021	0.00020			0.00021	0
Ba-D	mg/L	0.0011	0.0011	0.0011	0.0011	0.0011	5	0.0011	0.0011			0.0011	0
B-D	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250			0.025	0
Cd-D	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050	0.000087	0.00017	0.000005	0
Ca-D	mg/L	3.74	3.60	3.83	3.69	3.61	5	3.83	3.69			3.79	0
Cl-D	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	5	<1.0	0.50	150	600	0.5	0
Cr-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Co-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0
Cu-D	mg/L	0.00056	0.00049	0.00048	0.00040	0.00049	5	0.00056	0.00048	*	*	0.00053	5
DOC	mg/L	3.8	3.7	3.6	3.6	3.4	5	3.8	3.6			3.8	0
Hard-D	mg/L	12.5	12.2	12.7	12.2	12.1	5	12.7	12.3			12.6	0
Fe-D	mg/L	0.0416	0.0318	0.0325	0.0333	0.0333	5	0.0416	0.0345		0.35	0.0383	0
Pb-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0
Mg-D	mg/L	0.764	0.769	0.756	0.723	0.756	5	0.769	0.754			0.767	0
Mn-D	mg/L	0.0035	0.0040	0.0038	0.0036	0.0035	5	0.0040	0.0037			0.0039	0
Mo-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Ni-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Ag-D	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100			0.000010	0
K-D	mg/L	0.053	0.056	0.06	0.052	<0.050	5	0.06	0.0492			0.0584	0
S-D	mg/L	<3.0	<3.0	<3.0	<3.0	<3.0	5	<3.0	1.50			1.5	0
Se-D	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050			0.000050	0
Na-D	mg/L	1.04	1.02	1.03	0.952	0.976	5	1.04	1.004			1.036	0
Sr-D	mg/L	0.0111	0.0113	0.0122	0.0113	0.0105	5	0.0122	0.0113			0.0118	0
Zn-D	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0
N-NO23	mg/L	0.025	0.032	0.036	0.101	0.023	5	0.101	0.043			0.075	0

Notes: *Calculated guideline. Refer to Exccedance Tables.

Factor applied to less-than results when calculating statistics: 0.5

Table 42 Spring Lakes 17 Page(s)

EMS ID		E217018								Water Quality Guidelines			Count of results
StnName		No Name Lake Bottom											exceeding
StnCode		NNLB											standard
		10-Apr-24	17-Apr-24	24-Apr-24	1-May-24	8-May-24	Count	Max	5 in 30 Ave	Chronic	Acute	90th Percentile	
SO4-D	mg/L	2.5	2.0	2.5	2.5	2.4	5	2.5	2.4	128		2.5	0
Turb	NTU	0.57	0.39	0.3	1.1	0.35	5	1.1	0.54			0.89	0
Alk-T	mg/L	10	10	10	10	9.8	5	10	10.0			10	0
Al-T	mg/L	0.0464	0.0469	0.0438	0.0457	0.0428	5	0.0469	0.0451	*		0.0467	0
As-T	mg/L	0.00018	0.00020	0.00013	0.00020	0.00019	5	0.00020	0.00018	0.005		0.0002	0
B-T	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250	1.2		0.025	0
Ba-T	mg/L	<0.0010	0.0010	0.001	0.0011	0.001	5	0.0011	0.00092	1		0.00106	0
Cd-T	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050			0.000005	0
Ca-T	mg/L	3.24	3.38	3.35	3.45	3.37	5	3.45	3.36			3.42	0
Cr-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Co-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.11	0.0001	0
Cu-T	mg/L	<0.00050	<0.00050	0.00063	0.00050	<0.00050	5	0.00063	0.000376			0.000578	0
Fe-T	mg/L	0.056	0.059	0.06	0.068	0.06	5	0.068	0.061		1	0.065	0
Hard-T	mg/L	10.9	11.5	11.1	11.6	11.3	5	11.6	11.3			11.6	0
Pb-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.0176	0.0001	0
Mg-T	mg/L	0.675	0.735	0.671	0.719	0.694	5	0.735	0.699			0.729	0
Mn-T	mg/L	0.0038	0.0045	0.0044	0.0046	0.004	5	0.0046	0.0043	0.737	0.8706	0.0046	0
P-T	mg/L	0.0046	0.0038	0.0046	0.0038	0.0049	5	0.0049	0.0043	0.015		0.0048	0
Mo-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	7.6	46	0.0005	0
Ni-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	0.025		0.0005	0
K-T	mg/L	<0.050	0.053	<0.050	0.052	<0.050	5	0.053	0.0360			0.0526	0
S-T	mg/L	<3.0	<3.0	<3.0	<3.0	<3.0	5	<3.0	1.50			1.5	0
Se-T	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050	0.002		0.000050	0
Ag-T	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100	0.00005	0.0001	0.000010	0
Na-T	mg/L	0.875	0.960	0.875	0.946	0.919	5	0.960	0.915			0.954	0
Sr-T	mg/L	0.0102	0.0107	0.0105	0.0110	0.0102	5	0.0110	0.0105			0.0109	0
Zn-T	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0
Al-D	mg/L	0.0424	0.0418	0.0415	0.0419	0.0364	5	0.0424	0.0408			0.0422	0
As-D	mg/L	0.00019	0.00020	0.0002	0.00020	0.0002	5	0.0002	0.00020			0.0002	0
Ba-D	mg/L	0.0011	0.0011	0.0011	<0.0010	0.001	5	0.0011	0.00096			0.0011	0
B-D	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250			0.025	0
Cd-D	mg/L	<0.000010	<0.000010	0.000014	<0.000010	<0.000010	5	0.000014	0.0000068	0.000087	0.00017	0.000010	0
Ca-D	mg/L	3.78	3.58	3.82	3.89	3.6	5	3.89	3.73			3.86	0
Cl-D	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	5	<1.0	0.50	150	600	0.5	0
Cr-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Co-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0
Cu-D	mg/L	0.00050	0.00050	0.00049	0.00043	0.00048	5	0.00050	0.00048	*	*	0.0005	5
DOC	mg/L	3.5	3.7	3.4	3.8	3.3	5	3.8	3.5			3.8	0
Hard-D	mg/L	12.5	12.1	12.6	12.8	12.2	5	12.8	12.4			12.7	0
Fe-D	mg/L	0.0320	0.0318	0.0338	0.0385	0.0347	5	0.0385	0.0342		0.35	0.037	0
Pb-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0
Mg-D	mg/L	0.752	0.769	0.753	0.758	0.771	5	0.771	0.761			0.77	0
Mn-D	mg/L	0.0035	0.0040	0.0041	0.0040	0.0036	5	0.0041	0.0038			0.0041	0
Mo-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Ni-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Ag-D	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100			0.000010	0
K-D	mg/L	0.053	0.055	0.061	0.055	<0.050	5	0.061	0.0498			0.0586	0
S-D	mg/L	<3.0	<3.0	<3.0	<3.0	<3.0	5	<3.0	1.50			1.5	0
Se-D	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050			0.000050	0
Na-D	mg/L	1.04	0.999	1.04	0.966	0.962	5	1.04	1.001			1.04	0
Sr-D	mg/L	0.0112	0.0115	0.0126	0.0123	0.0108	5	0.0126	0.0117			0.0125	0
Zn-D	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0
N-NO23	mg/L	0.026	0.021	0.045	0.046	0.026	5	0.046	0.033			0.046	0

Notes: *Calculated guideline. Refer to Exccedance Tables.

Factor applied to less-than results when calculating statistics: 0.5

Table 42 Spring Lakes 17 Page(s)

EMS ID		E206619								Water Quality Guidelines			
StnName		Long Lake Middle 1 M											Count of results
StnCode		LLM1											exceeding
		10-Apr-24	17-Apr-24	24-Apr-24	1-May-24	8-May-24	Count	Max	5 in 30 Ave	Chronic	Acute	90th Percentile	standard
SO4-D	mg/L	40	37	44	44	43	5	44	41.6	128		44	0
Turb	NTU	0.46	0.34	0.39	0.34	0.23	5	0.46	0.35			0.43	0
Alk-T	mg/L	22	25	24	25	23	5	25	23.8			25	0
Al-T	mg/L	0.0342	0.0327	0.0305	0.0256	0.0226	5	0.0342	0.0291	*		0.0336	0
As-T	mg/L	0.00029	0.00031	0.00028	0.00030	0.00031	5	0.00031	0.00030	0.005		0.00031	0
B-T	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250	1.2		0.025	0
Ba-T	mg/L	0.0035	0.0037	0.0043	0.0041	0.004	5	0.0043	0.0039	1		0.0042	0
Cd-T	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050			0.000005	0
Ca-T	mg/L	15.1	14.7	17.5	16.5	15.5	5	17.5	15.9			17.1	0
Cr-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Co-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.11	0.0001	0
Cu-T	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	5	<0.00050	0.000250			0.00025	0
Fe-T	mg/L	0.052	0.054	0.051	0.043	0.041	5	0.054	0.048		1	0.053	0
Hard-T	mg/L	46.1	45.5	53.2	50.3	47.3	5	53.2	48.5			52	0
Pb-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.0176	0.0001	0
Mg-T	mg/L	2.03	2.12	2.33	2.24	2.09	5	2.33	2.16			2.29	0
Mn-T	mg/L	0.0058	0.0064	0.0076	0.0069	0.0063	5	0.0076	0.0066	0.737	0.8706	0.0073	0
P-T	mg/L	0.0049	0.0044	0.0045	0.0032	0.0053	5	0.0053	0.0045	0.015		0.0051	0
Mo-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	7.6	46	0.0005	0
Ni-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	0.025		0.0005	0
K-T	mg/L	0.169	0.170	0.19	0.185	0.176	5	0.19	0.178			0.188	0
S-T	mg/L	11.7	12.0	13.5	13.1	12	5	13.5	12.5			13.3	0
Se-T	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050	0.002		0.000050	0
Ag-T	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100	0.00005	0.0001	0.000010	0
Na-T	mg/L	4.31	4.23	4.89	4.63	4.4	5	4.89	4.49			4.79	0
Sr-T	mg/L	0.0901	0.0913	0.111	0.103	0.0946	5	0.111	0.0980			0.1078	0
Zn-T	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0
Al-D	mg/L	0.0309	0.0270	0.027	0.0235	0.0193	5	0.0309	0.0255			0.0293	0
As-D	mg/L	0.00029	0.00030	0.00031	0.00031	0.00034	5	0.00034	0.00031			0.00033	0
Ba-D	mg/L	0.0040	0.0038	0.0046	0.0044	0.0044	5	0.0046	0.0042			0.0045	0
B-D	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250			0.025	0
Cd-D	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050	0.000087	0.00017	0.000005	0
Ca-D	mg/L	17.5	15.7	18.8	18.1	17.4	5	18.8	17.5			18.5	0
Cl-D	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	5	<1.0	0.50	150	600	0.5	0
Cr-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Co-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0
Cu-D	mg/L	0.00047	0.00039	0.00041	0.00036	0.00039	5	0.00047	0.00040	*	*	0.00045	5
DOC	mg/L	3.6	3.6	3.4	3.4	3.3	5	3.6	3.5			3.6	0
Hard-D	mg/L	52.9	48.2	56.9	55.6	52.8	5	56.9	53.3			56.4	0
Fe-D	mg/L	0.0414	0.0358	0.0335	0.0305	0.0304	5	0.0414	0.0343		0.35	0.0392	0
Pb-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0
Mg-D	mg/L	2.23	2.16	2.45	2.53	2.29	5	2.53	2.33			2.5	0
Mn-D	mg/L	0.0059	0.0055	0.0059	0.0052	0.0043	5	0.0059	0.0054			0.0059	0
Mo-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Ni-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Ag-D	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100			0.000010	0
K-D	mg/L	0.190	0.175	0.208	0.210	0.19	5	0.210	0.195			0.209	0
S-D	mg/L	13.1	12.2	14.8	15.0	13.3	5	15.0	13.7			14.9	0
Se-D	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050			0.000050	0
Na-D	mg/L	4.85	4.36	5.18	5.40	4.94	5	5.40	4.95			5.31	0
Sr-D	mg/L	0.102	0.0945	0.112	0.114	0.106	5	0.114	0.1057			0.1132	0
Zn-D	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0
N-NO23	mg/L	<0.020	<0.020	<0.020	<0.020	<0.020	5	<0.020	0.0100			0.01	0
Chlr-a	ug/L					0.6	1	0.6	0.6			0.6	0

Notes: *Calculated guideline. Refer to Exccedance Tables.
Factor applied to less-than results when calculating statistics: 0.5

Table 42 Spring Lakes 17 Page(s)

EMS ID		E206619								Water Quality Guidelines			Count of results exceeding standard
StnName		Long Lake Middle 4 M											
StnCode		LLM4											
		10-Apr-24	17-Apr-24	24-Apr-24	1-May-24	8-May-24	Count	Max	5 in 30 Ave	Chronic	Acute	90th Percentile	
SO4-D	mg/L	48	58	60	63	58	5	63	57.4	128		61.8	0
Turb	NTU	0.46	0.51	0.54	0.50	0.29	5	0.54	0.46			0.53	0
Alk-T	mg/L	25	28	28	29	28	5	29	27.6			28.6	0
Al-T	mg/L	0.0385	0.0318	0.0301	0.0278	0.0241	5	0.0385	0.0305	*		0.0358	0
As-T	mg/L	0.00034	0.00032	0.00027	0.00030	0.00031	5	0.00034	0.00031	0.005		0.00033	0
B-T	mg/L	0.051	0.050	0.052	<0.050	<0.050	5	0.052	0.0406	1.2		0.0516	0
Ba-T	mg/L	0.0045	0.0050	0.0052	0.0054	0.0049	5	0.0054	0.0050	1		0.0053	0
Cd-T	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050			0.000005	0
Ca-T	mg/L	20.0	22.2	23	22.7	19.5	5	23	21.5			22.9	0
Cr-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Co-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.11	0.0001	0
Cu-T	mg/L	0.00055	<0.00050	<0.00050	<0.00050	<0.00050	5	0.00055	0.000310			0.00043	0
Fe-T	mg/L	0.062	0.058	0.059	0.057	0.048	5	0.062	0.057		1	0.061	0
Hard-T	mg/L	60.2	67.8	69.4	68.6	59.4	5	69.4	65.1			69.1	0
Pb-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.0176	0.0001	0
Mg-T	mg/L	2.51	3.00	2.93	2.90	2.61	5	3.00	2.79			2.97	0
Mn-T	mg/L	0.0083	0.0123	0.0131	0.0126	0.0091	5	0.0131	0.0111	0.737	0.8706	0.0129	0
P-T	mg/L	0.0035	0.0043	0.0039	0.0036	0.0049	5	0.0049	0.0040	0.015		0.0047	0
Mo-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	7.6	46	0.0005	0
Ni-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	0.025		0.0005	0
K-T	mg/L	0.220	0.250	0.245	0.254	0.222	5	0.254	0.238			0.252	0
S-T	mg/L	16.1	19.6	19.3	19.4	16.6	5	19.6	18.2			19.5	0
Se-T	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050	0.002		0.000050	0
Ag-T	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100	0.00005	0.0001	0.000010	0
Na-T	mg/L	5.67	6.47	6.49	6.48	5.62	5	6.49	6.15			6.49	0
Sr-T	mg/L	0.122	0.149	0.155	0.151	0.127	5	0.155	0.141			0.153	0
Zn-T	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0
Al-D	mg/L	0.0299	0.0264	0.0254	0.0223	0.0189	5	0.0299	0.0246			0.0285	0
As-D	mg/L	0.00030	0.00031	0.00029	0.00029	0.00033	5	0.00033	0.00030			0.00032	0
Ba-D	mg/L	0.0046	0.0054	0.0053	0.0056	0.0054	5	0.0056	0.0053			0.0055	0
B-D	mg/L	<0.050	0.053	0.052	0.054	<0.050	5	0.054	0.0418			0.0536	0
Cd-D	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050	0.000087	0.00017	0.000005	0
Ca-D	mg/L	20.0	25.2	24.3	24.8	22	5	25.2	23.3			25	0
Cl-D	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	5	<1.0	0.50	150	600	0.5	0
Cr-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Co-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0
Cu-D	mg/L	0.00038	0.00042	0.00042	0.00037	0.00039	5	0.00042	0.00040	*	*	0.00042	5
DOC	mg/L	3.7	4.3	3.4	3.5	3.5	5	4.3	3.7			4.1	0
Hard-D	mg/L	59.9	75.4	73.4	75.4	66.7	5	75.4	70.2			75.4	0
Fe-D	mg/L	0.0436	0.0403	0.0344	0.0319	0.0345	5	0.0436	0.0369		0.35	0.0423	0
Pb-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0
Mg-D	mg/L	2.45	3.07	3.09	3.29	2.85	5	3.29	2.95			3.21	0
Mn-D	mg/L	0.0074	0.0108	0.0098	0.0085	0.0053	5	0.0108	0.0084			0.0104	0
Mo-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Ni-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Ag-D	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100			0.000010	0
K-D	mg/L	0.220	0.269	0.261	0.278	0.238	5	0.278	0.253			0.274	0
S-D	mg/L	16.0	20.6	19.7	22.1	17.8	5	22.1	19.2			21.5	0
Se-D	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050			0.000050	0
Na-D	mg/L	5.54	6.87	6.69	7.30	6.19	5	7.30	6.52			7.13	0
Sr-D	mg/L	0.124	0.157	0.165	0.167	0.133	5	0.167	0.149			0.166	0
Zn-D	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0
N-NO23	mg/L	<0.020	<0.020	<0.020	<0.020	<0.020	5	<0.020	0.0100			0.01	0

Notes: *Calculated guideline. Refer to Exccedance Tables.

Factor applied to less-than results when calculating statistics: 0.5

Table 42 Spring Lakes 17 Page(s)

EMS ID		E206619								Water Quality Guidelines			Count of results exceeding standard
StnName		Long Lake Middle 9 M											
StnCode		LLM9											
		10-Apr-24	17-Apr-24	24-Apr-24	1-May-24	8-May-24	Count	Max	5 in 30 Ave	Chronic	Acute	90th Percentile	
SO4-D	mg/L	76	76	84	83	86	5	86	81.0	128		85.2	0
Turb	NTU	0.35	0.43	0.39	0.63	0.3	5	0.63	0.42			0.55	0
Alk-T	mg/L	33	34	34	34	34	5	34	33.8			34	0
Al-T	mg/L	0.0340	0.0278	0.0274	0.0268	0.0249	5	0.0340	0.0282	*		0.0315	0
As-T	mg/L	0.00031	0.00027	0.00026	0.00029	0.00025	5	0.00031	0.00028	0.005		0.0003	0
B-T	mg/L	0.071	0.062	0.069	0.069	0.059	5	0.071	0.066	1.2		0.07	0
Ba-T	mg/L	0.0059	0.0060	0.0061	0.0061	0.0057	5	0.0061	0.0060	1		0.0061	0
Cd-T	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050			0.000005	0
Ca-T	mg/L	30.8	30.1	31.1	31.2	28.7	5	31.2	30.4			31.2	0
Cr-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Co-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.11	0.0001	0
Cu-T	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	5	<0.00050	0.000250			0.00025	0
Fe-T	mg/L	0.058	0.050	0.053	0.054	0.045	5	0.058	0.052		1	0.056	0
Hard-T	mg/L	91.8	89.4	92.6	93.6	86.4	5	93.6	90.8			93.2	0
Pb-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.0176	0.0001	0
Mg-T	mg/L	3.61	3.48	3.65	3.80	3.57	5	3.80	3.62			3.74	0
Mn-T	mg/L	0.0311	0.0341	0.0371	0.0368	0.0331	5	0.0371	0.0344	0.737	0.8706	0.037	0
P-T	mg/L	0.0036	0.0047	0.0048	0.0032	0.0039	5	0.0048	0.0040	0.015		0.0048	0
Mo-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	7.6	46	0.0005	0
Ni-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	0.025		0.0005	0
K-T	mg/L	0.338	0.331	0.334	0.339	0.32	5	0.339	0.332			0.339	0
S-T	mg/L	26.7	27.4	26.4	26.5	24.9	5	27.4	26.4			27.1	0
Se-T	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050	0.002		0.000050	0
Ag-T	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100	0.00005	0.0001	0.000010	0
Na-T	mg/L	9.08	8.50	8.86	8.73	8.43	5	9.08	8.72			8.99	0
Sr-T	mg/L	0.196	0.198	0.212	0.205	0.193	5	0.212	0.201			0.209	0
Zn-T	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0
Al-D	mg/L	0.0252	0.0240	0.0234	0.0229	0.02	5	0.0252	0.0231			0.0247	0
As-D	mg/L	0.00028	0.00028	0.00026	0.00026	0.00027	5	0.00028	0.00027			0.00028	0
Ba-D	mg/L	0.0061	0.0064	0.0065	0.0063	0.0064	5	0.0065	0.0063			0.0065	0
B-D	mg/L	0.061	0.071	0.068	0.075	0.06	5	0.075	0.067			0.073	0
Cd-D	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050	0.000087	0.00017	0.000005	0
Ca-D	mg/L	31.6	31.4	32.8	32.7	31.9	5	32.8	32.1			32.8	0
Cl-D	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	5	<1.0	0.50	150	600	0.5	0
Cr-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Co-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0
Cu-D	mg/L	0.00040	0.00040	0.00041	0.00058	0.00044	5	0.00058	0.00045	*	*	0.00052	5
DOC	mg/L	3.9	3.7	3.5	3.4	3.8	5	3.9	3.7			3.9	0
Hard-D	mg/L	93.8	94.5	98.2	98.2	95.8	5	98.2	96.1			98.2	0
Fe-D	mg/L	0.0367	0.0319	0.0311	0.0304	0.0318	5	0.0367	0.0324		0.35	0.0348	0
Pb-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0
Mg-D	mg/L	3.63	3.91	3.94	4.01	3.91	5	4.01	3.88			3.98	0
Mn-D	mg/L	0.0283	0.0310	0.033	0.0323	0.0298	5	0.033	0.0309			0.0327	0
Mo-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Ni-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Ag-D	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100			0.000010	0
K-D	mg/L	0.344	0.359	0.359	0.370	0.35	5	0.370	0.356			0.366	0
S-D	mg/L	26.8	28.7	28.2	28.6	27.3	5	28.7	27.9			28.7	0
Se-D	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050			0.000050	0
Na-D	mg/L	9.07	9.54	9.5	9.61	9.46	5	9.61	9.44			9.58	0
Sr-D	mg/L	0.203	0.215	0.234	0.219	0.21	5	0.234	0.216			0.228	0
Zn-D	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0
N-NO23	mg/L	0.033	0.030	0.055	0.053	0.036	5	0.055	0.041			0.054	0

Notes: *Calculated guideline. Refer to Exccedance Tables.

Factor applied to less-than results when calculating statistics: 0.5

Table 42 Spring Lakes 17 Page(s)

EMS ID		E206619								Water Quality Guidelines			
StnName		Long Lake Middle 1M From B											Count of results
StnCode		LLMB											exceeding
		10-Apr-24	17-Apr-24	24-Apr-24	1-May-24	8-May-24	Count	Max	5 in 30 Ave	Chronic	Acute	90th Percentile	standard
SO4-D	mg/L	83	53	86	84	86	5	86	78.4	128		86	0
Turb	NTU	0.48	0.38	0.48	0.69	0.4	5	0.69	0.49			0.61	0
Alk-T	mg/L	34	27	34	34	35	5	35	32.8			34.6	0
Al-T	mg/L	0.0232	0.0296	0.0264	0.0255	0.0255	5	0.0296	0.0260	*		0.0283	0
As-T	mg/L	0.00028	0.00027	0.00026	0.00025	0.0003	5	0.0003	0.00027	0.005		0.00029	0
B-T	mg/L	0.075	<0.050	0.07	0.062	0.062	5	0.075	0.0588	1.2		0.073	0
Ba-T	mg/L	0.0062	0.0047	0.0061	0.0055	0.0063	5	0.0063	0.0058	1		0.0063	0
Cd-T	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050			0.000005	0
Ca-T	mg/L	32.1	21.6	29.4	28.1	29.9	5	32.1	28.2			31.2	0
Cr-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Co-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.11	0.0001	0
Cu-T	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	5	<0.00050	0.000250			0.00025	0
Fe-T	mg/L	0.032	0.048	0.051	0.053	0.059	5	0.059	0.049		1	0.057	0
Hard-T	mg/L	95.7	64.1	88.7	84.3	89.5	5	95.7	84.5			93.2	0
Pb-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.0176	0.0001	0
Mg-T	mg/L	3.76	2.48	3.73	3.42	3.63	5	3.76	3.40			3.75	0
Mn-T	mg/L	0.0346	0.0194	0.0406	0.0378	0.0543	5	0.0543	0.0373	0.737	0.8706	0.0488	0
P-T	mg/L	<0.0030	0.0038	0.0053	0.0045	0.0049	5	0.0053	0.00400	0.015		0.00514	0
Mo-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	7.6	46	0.0005	0
Ni-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	0.025		0.0005	0
K-T	mg/L	0.354	0.239	0.327	0.308	0.335	5	0.354	0.313			0.346	0
S-T	mg/L	28.9	17.2	26.4	23.9	26	5	28.9	24.5			27.9	0
Se-T	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050	0.002		0.000050	0
Ag-T	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100	0.00005	0.0001	0.000010	0
Na-T	mg/L	9.58	6.01	8.85	8.29	8.88	5	9.58	8.32			9.3	0
Sr-T	mg/L	0.207	0.137	0.22	0.191	0.203	5	0.22	0.192			0.215	0
Zn-T	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0
Al-D	mg/L	0.0306	0.0270	0.0234	0.0207	0.0185	5	0.0306	0.0240			0.0292	0
As-D	mg/L	0.00031	0.00030	0.00033	0.00026	0.00028	5	0.00033	0.00030			0.00032	0
Ba-D	mg/L	0.0070	0.0048	0.0066	0.0062	0.0067	5	0.0070	0.0063			0.0069	0
B-D	mg/L	0.068	0.051	0.073	0.074	0.061	5	0.074	0.065			0.074	0
Cd-D	mg/L	<0.000010	<0.000010	0.000074	<0.000010	<0.000010	5	0.000074	0.0000188	0.000087	0.00017	0.000046	0
Ca-D	mg/L	34.4	20.9	34.5	32.2	32.2	5	34.5	30.8			34.5	0
Cl-D	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	5	<1.0	0.50	150	600	0.5	0
Cr-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Co-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0
Cu-D	mg/L	0.00040	0.00040	0.00061	0.00036	0.00038	5	0.00061	0.00043	*	*	0.00053	5
DOC	mg/L	4.2	3.6	3.4	3.9	3.7	5	4.2	3.8			4.1	0
Hard-D	mg/L	102	63.8	103	96.4	96.7	5	103	92.4			102.6	0
Fe-D	mg/L	0.0334	0.0354	0.0322	0.0301	0.0319	5	0.0354	0.0326		0.35	0.0346	0
Pb-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0
Mg-D	mg/L	3.90	2.79	4.07	3.91	3.93	5	4.07	3.72			4.01	0
Mn-D	mg/L	0.0434	0.0140	0.0376	0.0340	0.0491	5	0.0491	0.0356			0.0468	0
Mo-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Ni-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Ag-D	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100			0.000010	0
K-D	mg/L	0.379	0.240	0.402	0.353	0.356	5	0.402	0.346			0.393	0
S-D	mg/L	30.0	17.8	28.9	28.2	27	5	30.0	26.4			29.6	0
Se-D	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050			0.000050	0
Na-D	mg/L	10.0	6.20	9.83	9.42	9.53	5	10.0	9.00			9.93	0
Sr-D	mg/L	0.228	0.136	0.241	0.216	0.207	5	0.241	0.206			0.236	0
Zn-D	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0
N-NO23	mg/L	0.042	<0.020	0.072	0.055	0.049	5	0.072	0.0456			0.0652	0

Notes: *Calculated guideline. Refer to Exccedance Tables.
Factor applied to less-than results when calculating statistics: 0.5

Table 42 Spring Lakes 17 Page(s)

EMS ID		E206618								Water Quality Guidelines			
StnName		Middle Quinsam Lake 1M											Count of results
StnCode		MQL1											exceeding
		10-Apr-24	17-Apr-24	24-Apr-24	1-May-24	8-May-24	Count	Max	5 in 30 Ave	Chronic	Acute	90th Percentile	standard
SO4-D	mg/L	25	21	19	20	21	5	25	21.2	128		23.4	0
Turb	NTU	0.41	0.27	0.5	0.24	0.27	5	0.5	0.34			0.46	0
Alk-T	mg/L	37	35	35	36	37	5	37	36.0			37	0
Al-T	mg/L	0.0166	0.0175	0.0151	0.0137	0.0151	5	0.0175	0.0156	*		0.0171	0
As-T	mg/L	<0.00010	0.00011	0.00011	<0.00010	0.00012	5	0.00012	0.000088	0.005		0.000116	0
B-T	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250	1.2		0.025	0
Ba-T	mg/L	0.0016	0.0014	0.0014	0.0013	0.0015	5	0.0016	0.0014	1		0.0016	0
Cd-T	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050			0.000005	0
Ca-T	mg/L	10.1	9.96	9.07	9.03	10	5	10.1	9.63			10.06	0
Cr-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Co-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.11	0.0001	0
Cu-T	mg/L	0.00050	<0.00050	0.00056	0.00050	0.00055	5	0.00056	0.000472			0.000556	0
Fe-T	mg/L	0.024	0.024	0.021	0.022	0.023	5	0.024	0.023		1	0.024	0
Hard-T	mg/L	30.6	29.6	27.1	27.2	30.1	5	30.6	28.9			30.4	0
Pb-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.0176	0.0001	0
Mg-T	mg/L	1.31	1.16	1.09	1.13	1.25	5	1.31	1.19			1.29	0
Mn-T	mg/L	0.0033	0.0037	0.0034	0.0036	0.0035	5	0.0037	0.0035	0.737	0.8706	0.0037	0
P-T	mg/L	<0.0030	<0.0030	0.01	<0.0030	<0.0030	5	0.01	0.00320	0.015		0.0066	0
Mo-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	7.6	46	0.0005	0
Ni-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	0.025		0.0005	0
K-T	mg/L	0.191	0.180	0.167	0.162	0.185	5	0.191	0.177			0.189	0
S-T	mg/L	7.6	5.2	5.5	5.8	6.4	5	7.6	6.1			7.1	0
Se-T	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050	0.002		0.000050	0
Ag-T	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100	0.00005	0.0001	0.000010	0
Na-T	mg/L	11.4	10.0	8.84	9.36	10.6	5	11.4	10.04			11.08	0
Sr-T	mg/L	0.0500	0.0496	0.0433	0.0409	0.0467	5	0.0500	0.0461			0.0498	0
Zn-T	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0
Al-D	mg/L	0.0159	0.0146	0.0153	0.0137	0.012	5	0.0159	0.0143			0.0157	0
As-D	mg/L	0.00012	0.00012	0.0001	0.00010	0.00011	5	0.00012	0.00011			0.00012	0
Ba-D	mg/L	0.0017	0.0015	0.0015	0.0015	0.0015	5	0.0017	0.0015			0.0016	0
B-D	mg/L	<0.050	0.103	<0.050	<0.050	<0.050	5	0.103	0.0406			0.0718	0
Cd-D	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050	0.000087	0.00017	0.000005	0
Ca-D	mg/L	11.9	11.9	10.3	10.8	10.5	5	11.9	11.1			11.9	0
Cl-D	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	5	<1.0	0.50	150	600	0.5	0
Cr-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Co-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0
Cu-D	mg/L	0.00054	0.00052	0.00058	0.00052	0.00055	5	0.00058	0.00054	*	*	0.00057	5
DOC	mg/L	2.4	2.3	2.3	2.3	2.2	5	2.4	2.3			2.4	0
Hard-D	mg/L	35.5	34.9	30.9	32.3	31.7	5	35.5	33.1			35.3	0
Fe-D	mg/L	0.0165	0.0200	0.0165	0.0157	0.0162	5	0.0200	0.0170		0.35	0.0186	0
Pb-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0
Mg-D	mg/L	1.40	1.26	1.24	1.30	1.32	5	1.40	1.30			1.37	0
Mn-D	mg/L	0.0022	0.0023	0.0018	0.0016	0.002	5	0.0023	0.0020			0.0023	0
Mo-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Ni-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Ag-D	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100			0.000010	0
K-D	mg/L	0.212	0.184	0.178	0.191	0.188	5	0.212	0.191			0.204	0
S-D	mg/L	8.7	6.9	6.8	7.1	6.8	5	8.7	7.3			8.1	0
Se-D	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050			0.000050	0
Na-D	mg/L	13.1	10.5	10.2	11.2	11.1	5	13.1	11.2			12.3	0
Sr-D	mg/L	0.0559	0.0471	0.0489	0.0474	0.0473	5	0.0559	0.0493			0.0531	0
Zn-D	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0
N-NO23	mg/L	<0.020	<0.020	<0.020	<0.020	<0.020	5	<0.020	0.0100			0.01	0
Chlr-a	ug/L					0.61	1	0.61	0.61			0.61	0

Notes: *Calculated guideline. Refer to Exccedance Tables.
Factor applied to less-than results when calculating statistics: 0.5

Table 42 Spring Lakes 17 Page(s)

EMS ID		E206618								Water Quality Guidelines			
StnName		Middle Quinsam Lake 4M											Count of results
StnCode		MQL4											exceeding
		10-Apr-24	17-Apr-24	24-Apr-24	1-May-24	8-May-24	Count	Max	5 in 30 Ave	Chronic	Acute	90th Percentile	standard
SO4-D	mg/L	25	21	19	20	21	5	25	21.2	128		23.4	0
Turb	NTU	0.36	0.27	0.29	0.25	0.19	5	0.36	0.27			0.33	0
Alk-T	mg/L	38	35	33	36	37	5	38	35.8			37.6	0
Al-T	mg/L	0.0171	0.0163	0.0155	0.0148	0.014	5	0.0171	0.0155	*		0.0168	0
As-T	mg/L	<0.00010	<0.00010	0.00012	0.00011	0.00011	5	0.00012	0.000088	0.005		0.000116	0
B-T	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250	1.2		0.025	0
Ba-T	mg/L	0.0016	0.0014	0.0014	0.0014	0.0014	5	0.0016	0.0014	1		0.0015	0
Cd-T	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050			0.000005	0
Ca-T	mg/L	10.5	9.60	9.14	9.31	9.67	5	10.5	9.64			10.17	0
Cr-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Co-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.11	0.0001	0
Cu-T	mg/L	0.00056	<0.00050	0.00052	0.00052	0.00053	5	0.00056	0.000476			0.000548	0
Fe-T	mg/L	0.025	0.023	0.022	0.026	0.023	5	0.026	0.024		1	0.026	0
Hard-T	mg/L	31.7	28.4	27.4	28.1	29.2	5	31.7	29.0			30.7	0
Pb-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.0176	0.0001	0
Mg-T	mg/L	1.32	1.08	1.1	1.17	1.23	5	1.32	1.18			1.28	0
Mn-T	mg/L	0.0034	0.0036	0.0035	0.0039	0.0037	5	0.0039	0.0036	0.737	0.8706	0.0038	0
P-T	mg/L	0.0030	<0.0030	0.0034	<0.0030	0.003	5	0.0034	0.00248	0.015		0.00324	0
Mo-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	7.6	46	0.0005	0
Ni-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	0.025		0.0005	0
K-T	mg/L	0.194	0.169	0.158	0.172	0.181	5	0.194	0.175			0.189	0
S-T	mg/L	7.8	7.3	6	6.1	6.7	5	7.8	6.8			7.6	0
Se-T	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050	0.002		0.000050	0
Ag-T	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100	0.00005	0.0001	0.000010	0
Na-T	mg/L	11.5	9.53	9.07	9.84	10.4	5	11.5	10.07			11.06	0
Sr-T	mg/L	0.0512	0.0475	0.0428	0.0442	0.0464	5	0.0512	0.0464			0.0497	0
Zn-T	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0
Al-D	mg/L	0.0172	0.0148	0.0152	0.0138	0.0117	5	0.0172	0.0145			0.0164	0
As-D	mg/L	0.00011	0.00011	<0.00010	0.00011	0.00011	5	0.00011	0.000098			0.00011	0
Ba-D	mg/L	0.0017	0.0015	0.0015	0.0014	0.0015	5	0.0017	0.0015			0.0016	0
B-D	mg/L	<0.050	0.065	<0.050	0.052	<0.050	5	0.065	0.0384			0.0598	0
Cd-D	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050	0.000087	0.00017	0.000005	0
Ca-D	mg/L	11.6	10.4	10.5	10.5	10.4	5	11.6	10.7			11.2	0
Cl-D	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	5	<1.0	0.50	150	600	0.5	0
Cr-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Co-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0
Cu-D	mg/L	0.00054	0.00052	0.00055	0.00052	0.00056	5	0.00056	0.00054	*	*	0.00056	5
DOC	mg/L	2.6	2.4	2.3	2.2	2.1	5	2.6	2.3			2.5	0
Hard-D	mg/L	34.8	31.1	31.5	31.7	31.3	5	34.8	32.1			33.6	0
Fe-D	mg/L	0.0182	0.0172	0.0158	0.0146	0.0161	5	0.0182	0.0164		0.35	0.0178	0
Pb-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0
Mg-D	mg/L	1.40	1.25	1.27	1.35	1.31	5	1.40	1.32			1.38	0
Mn-D	mg/L	0.0022	0.0023	0.0015	<0.0010	0.0015	5	0.0023	0.00160			0.00226	0
Mo-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Ni-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Ag-D	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100			0.000010	0
K-D	mg/L	0.212	0.184	0.18	0.188	0.186	5	0.212	0.190			0.202	0
S-D	mg/L	8.7	6.8	6.9	6.8	6.7	5	8.7	7.2			8	0
Se-D	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050			0.000050	0
Na-D	mg/L	13.1	10.5	10.3	11.3	11.4	5	13.1	11.3			12.4	0
Sr-D	mg/L	0.0584	0.0475	0.0488	0.0482	0.0481	5	0.0584	0.0502			0.0546	0
Zn-D	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0
N-NO23	mg/L	<0.020	<0.020	<0.020	<0.020	<0.020	5	<0.020	0.0100			0.01	0

Notes: *Calculated guideline. Refer to Exccedance Tables.

Factor applied to less-than results when calculating statistics: 0.5

Table 42 Spring Lakes 17 Page(s)

EMS ID		E206618								Water Quality Guidelines			Count of results
StnName		Middle Quinsam Lake 9M											exceeding
StnCode		MQL9											standard
		10-Apr-24	17-Apr-24	24-Apr-24	1-May-24	8-May-24	Count	Max	5 in 30 Ave	Chronic	Acute	90th Percentile	
SO4-D	mg/L	24	24	24	23	23	5	24	23.6	128		24	0
Turb	NTU	0.30	0.29	0.24	0.82	0.21	5	0.82	0.37			0.61	0
Alk-T	mg/L	36	36	36	36	36	5	36	36.0			36	0
Al-T	mg/L	0.0171	0.0150	0.0137	0.0153	0.013	5	0.0171	0.0148	*		0.0164	0
As-T	mg/L	<0.00010	0.00010	<0.00010	0.00011	0.00011	5	0.00011	0.000084	0.005		0.00011	0
B-T	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250	1.2		0.025	0
Ba-T	mg/L	0.0016	0.0017	0.0016	0.0016	0.0015	5	0.0017	0.0016	1		0.0017	0
Cd-T	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050			0.000005	0
Ca-T	mg/L	10.3	10.0	10.1	10.5	9.93	5	10.5	10.17			10.42	0
Cr-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Co-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.11	0.0001	0
Cu-T	mg/L	0.00051	<0.00050	0.00053	<0.00050	<0.00050	5	0.00053	0.000358			0.000522	0
Fe-T	mg/L	0.022	0.020	0.019	0.020	0.017	5	0.022	0.020		1	0.021	0
Hard-T	mg/L	31.1	29.7	30.4	31.7	29.9	5	31.7	30.6			31.5	0
Pb-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.0176	0.0001	0
Mg-T	mg/L	1.31	1.13	1.28	1.33	1.25	5	1.33	1.26			1.32	0
Mn-T	mg/L	0.0025	0.0029	0.0031	0.0031	0.0026	5	0.0031	0.0028	0.737	0.8706	0.0031	0
P-T	mg/L	0.0040	<0.0030	<0.0030	0.0044	0.0031	5	0.0044	0.00290	0.015		0.00424	0
Mo-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	7.6	46	0.0005	0
Ni-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	0.025		0.0005	0
K-T	mg/L	0.181	0.175	0.173	0.184	0.169	5	0.184	0.176			0.183	0
S-T	mg/L	7.5	8.6	7	7.5	6.9	5	8.6	7.5			8.2	0
Se-T	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050	0.002		0.000050	0
Ag-T	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100	0.00005	0.0001	0.000010	0
Na-T	mg/L	10.8	10.3	10.7	10.8	10.3	5	10.8	10.6			10.8	0
Sr-T	mg/L	0.0486	0.0516	0.0511	0.0495	0.0462	5	0.0516	0.0494			0.0514	0
Zn-T	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0
Al-D	mg/L	0.0158	0.0149	0.0144	0.0128	0.0104	5	0.0158	0.0137			0.0154	0
As-D	mg/L	0.00011	0.00011	0.00012	<0.00010	0.00012	5	0.00012	0.000102			0.00012	0
Ba-D	mg/L	0.0017	0.0017	0.0017	0.0016	0.0016	5	0.0017	0.0017			0.0017	0
B-D	mg/L	<0.050	0.057	<0.050	0.053	<0.050	5	0.057	0.0370			0.0554	0
Cd-D	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050	0.000087	0.00017	0.000005	0
Ca-D	mg/L	11.8	11.0	11.5	11.2	10.8	5	11.8	11.3			11.7	0
Cl-D	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	5	<1.0	0.50	150	600	0.5	0
Cr-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Co-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0
Cu-D	mg/L	0.00050	0.00058	0.00049	0.00049	0.00051	5	0.00058	0.00051	*	*	0.00055	5
DOC	mg/L	2.5	2.7	2.2	2.5	2.3	5	2.7	2.4			2.6	0
Hard-D	mg/L	35.1	33.1	34.7	33.6	32.6	5	35.1	33.8			34.9	0
Fe-D	mg/L	0.0151	0.0146	0.0122	0.0112	0.0103	5	0.0151	0.0127		0.35	0.0149	0
Pb-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0
Mg-D	mg/L	1.38	1.38	1.44	1.40	1.36	5	1.44	1.39			1.42	0
Mn-D	mg/L	0.0013	0.0012	<0.0010	<0.0010	<0.0010	5	0.0013	0.00080			0.00126	0
Mo-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Ni-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Ag-D	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100			0.000010	0
K-D	mg/L	0.199	0.194	0.204	0.188	0.181	5	0.204	0.193			0.202	0
S-D	mg/L	8.8	7.9	8.5	8.1	7.2	5	8.8	8.1			8.7	0
Se-D	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050			0.000050	0
Na-D	mg/L	12.4	11.7	12.4	11.6	11.5	5	12.4	11.9			12.4	0
Sr-D	mg/L	0.0527	0.0526	0.0573	0.0512	0.0484	5	0.0573	0.0524			0.0555	0
Zn-D	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0
N-NO23	mg/L	<0.020	<0.020	<0.020	<0.020	0.073	5	0.073	0.0226			0.0478	0

Notes: *Calculated guideline. Refer to Exccedance Tables.

Factor applied to less-than results when calculating statistics: 0.5

Table 42 Spring Lakes 17 Page(s)

EMS ID		E206618								Water Quality Guidelines			
StnName		Middle Quinsam Lake 1MB											Count of results
StnCode		MQLB											exceeding
		10-Apr-24	17-Apr-24	24-Apr-24	1-May-24	8-May-24	Count	Max	5 in 30 Ave	Chronic	Acute	90th Percentile	standard
SO4-D	mg/L	25	24	25	25	25	5	25	24.8	128		25	0
Turb	NTU	0.32	0.30	0.42	0.41	0.35	5	0.42	0.36			0.42	0
Alk-T	mg/L	36	36	39	36	36	5	39	36.6			37.8	0
Al-T	mg/L	0.0170	0.0168	0.0129	0.0141	0.0129	5	0.0170	0.0147	*		0.0169	0
As-T	mg/L	<0.00010	0.00011	<0.00010	<0.00010	0.0001	5	0.00011	0.000072	0.005		0.000106	0
B-T	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250	1.2		0.025	0
Ba-T	mg/L	0.0017	0.0018	0.0015	0.0017	0.0016	5	0.0018	0.0017	1		0.0018	0
Cd-T	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050			0.000005	0
Ca-T	mg/L	10.5	10.6	9.99	10.3	10.3	5	10.6	10.34			10.56	0
Cr-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Co-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.11	0.0001	0
Cu-T	mg/L	<0.00050	<0.00050	0.00056	<0.00050	<0.00050	5	0.00056	0.000312			0.000436	0
Fe-T	mg/L	0.023	0.020	0.018	0.022	0.019	5	0.023	0.020		1	0.023	0
Hard-T	mg/L	32.0	31.6	30.1	31.3	31.2	5	32.0	31.2			31.8	0
Pb-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.0176	0.0001	0
Mg-T	mg/L	1.40	1.25	1.26	1.36	1.33	5	1.40	1.32			1.38	0
Mn-T	mg/L	0.0026	0.0030	0.0038	0.0051	0.0039	5	0.0051	0.0037	0.737	0.8706	0.0046	0
P-T	mg/L	<0.0030	0.0031	<0.0030	0.0033	<0.0030	5	0.0033	0.00218	0.015		0.00322	0
Mo-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	7.6	46	0.0005	0
Ni-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	0.025		0.0005	0
K-T	mg/L	0.179	0.171	0.174	0.176	0.177	5	0.179	0.175			0.178	0
S-T	mg/L	7.8	7.8	8.1	7.4	7.3	5	8.1	7.7			8	0
Se-T	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050	0.002		0.000050	0
Ag-T	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100	0.00005	0.0001	0.000010	0
Na-T	mg/L	10.6	10.7	10.4	10.6	10.6	5	10.7	10.6			10.7	0
Sr-T	mg/L	0.0484	0.0534	0.0498	0.0474	0.0473	5	0.0534	0.0493			0.052	0
Zn-T	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0
Al-D	mg/L	0.0157	0.0134	0.014	0.0118	0.0098	5	0.0157	0.0129			0.015	0
As-D	mg/L	0.00010	0.00011	0.0001	<0.00010	<0.00010	5	0.00011	0.000082			0.000106	0
Ba-D	mg/L	0.0017	0.0017	0.0018	0.0019	0.0017	5	0.0019	0.0018			0.0019	0
B-D	mg/L	<0.050	0.054	<0.050	0.053	<0.050	5	0.054	0.0364			0.0536	0
Cd-D	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050	0.000087	0.00017	0.000005	0
Ca-D	mg/L	11.9	11.3	12	12.0	11.4	5	12.0	11.7			12	0
Cl-D	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	5	<1.0	0.50	150	600	0.5	0
Cr-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Co-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0
Cu-D	mg/L	0.00051	0.00051	0.00059	0.00048	0.00051	5	0.00059	0.00052	*	*	0.00056	5
DOC	mg/L	2.6	2.4	2.5	2.2	2.4	5	2.6	2.4			2.6	0
Hard-D	mg/L	35.7	34.1	36.2	36.5	34.5	5	36.5	35.4			36.4	0
Fe-D	mg/L	0.0144	0.0130	0.0148	0.0116	0.0108	5	0.0148	0.0129		0.35	0.0146	0
Pb-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0
Mg-D	mg/L	1.47	1.45	1.53	1.55	1.45	5	1.55	1.49			1.54	0
Mn-D	mg/L	0.0012	<0.0010	0.0012	<0.0010	<0.0010	5	0.0012	0.00078			0.0012	0
Mo-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Ni-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Ag-D	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100			0.000010	0
K-D	mg/L	0.192	0.188	0.2	0.193	0.185	5	0.2	0.192			0.197	0
S-D	mg/L	8.1	8.0	9.2	8.5	7.8	5	9.2	8.3			8.9	0
Se-D	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050			0.000050	0
Na-D	mg/L	11.9	11.4	12.3	12.2	11.9	5	12.3	11.9			12.3	0
Sr-D	mg/L	0.0520	0.0525	0.0584	0.0542	0.0506	5	0.0584	0.0535			0.0567	0
Zn-D	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0
N-NO23	mg/L	<0.020	<0.020	<0.020	0.034	<0.020	5	0.034	0.0148			0.0244	0

Notes: *Calculated guideline. Refer to Exccedance Tables.

Factor applied to less-than results when calculating statistics: 0.5

Table 42 Spring Lakes 17 Page(s)

EMS ID										Water Quality Guidelines			
StnName		LLE Zone of Dilution 2											Count of results
StnCode		LLEZ2											exceeding
		10-Apr-24	17-Apr-24	24-Apr-24	1-May-24	8-May-24	Count	Max	5 in 30 Ave	Chronic	Acute	90th Percentile	standard
SO4-D	mg/L	40	39	45	46	44	5	46	42.8	128		45.6	0
Turb	NTU	0.45	0.50	0.28	0.65	0.25	5	0.65	0.43			0.59	0
Alk-T	mg/L	23	23	25	25	24	5	25	24.0			25	0
Al-T	mg/L	0.0379	0.0324	0.0313	0.0250	0.0238	5	0.0379	0.0301	*		0.0357	0
As-T	mg/L	0.00033	0.00028	0.00027	0.00029	0.00032	5	0.00033	0.00030	0.005		0.00033	0
B-T	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250	1.2		0.025	0
Ba-T	mg/L	0.0041	0.0039	0.0043	0.0042	0.0044	5	0.0044	0.0042	1		0.0044	0
Cd-T	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050			0.000005	0
Ca-T	mg/L	17.3	15.7	16.5	17.5	17.1	5	17.5	16.8			17.4	0
Cr-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Co-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.11	0.0001	0
Cu-T	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	5	<0.00050	0.000250			0.00025	0
Fe-T	mg/L	0.060	0.051	0.048	0.046	0.044	5	0.060	0.050		1	0.056	0
Hard-T	mg/L	52.5	47.1	50.7	53.5	52.3	5	53.5	51.2			53.1	0
Pb-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.0176	0.0001	0
Mg-T	mg/L	2.24	1.91	2.29	2.34	2.34	5	2.34	2.22			2.34	0
Mn-T	mg/L	0.0066	0.0066	0.0079	0.0073	0.0066	5	0.0079	0.0070	0.737	0.8706	0.0077	0
P-T	mg/L	0.0033	0.0042	<0.0030	0.0037	0.0043	5	0.0043	0.00340	0.015		0.00426	0
Mo-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	7.6	46	0.0005	0
Ni-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	0.025		0.0005	0
K-T	mg/L	0.190	0.186	0.188	0.190	0.186	5	0.190	0.188			0.19	0
S-T	mg/L	13.0	10.9	13.4	13.4	13.3	5	13.4	12.8			13.4	0
Se-T	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050	0.002		0.000050	0
Ag-T	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100	0.00005	0.0001	0.000010	0
Na-T	mg/L	4.75	4.28	4.79	4.74	4.81	5	4.81	4.67			4.8	0
Sr-T	mg/L	0.102	0.0952	0.112	0.105	0.103	5	0.112	0.1034			0.1092	0
Zn-T	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0
Al-D	mg/L	0.0297	0.0276	0.0253	0.0220	0.0217	5	0.0297	0.0253			0.0289	0
As-D	mg/L	0.00031	0.00032	0.00032	0.00030	0.00034	5	0.00034	0.00032			0.00033	0
Ba-D	mg/L	0.0041	0.0042	0.0044	0.0047	0.0047	5	0.0047	0.0044			0.0047	0
B-D	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250			0.025	0
Cd-D	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050	0.000087	0.00017	0.000005	0
Ca-D	mg/L	17.3	16.6	20.3	19.2	18	5	20.3	18.3			19.9	0
Cl-D	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	5	<1.0	0.50	150	600	0.5	0
Cr-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Co-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0
Cu-D	mg/L	0.00070	0.00042	0.0004	0.00040	0.0004	5	0.00070	0.00046	*	*	0.00059	5
DOC	mg/L	3.6	3.6	3.5	3.4	3.6	5	3.6	3.5			3.6	0
Hard-D	mg/L	52.4	51.0	61.3	58.2	54.9	5	61.3	55.6			60.1	0
Fe-D	mg/L	0.232	0.0363	0.0409	0.0323	0.0312	5	0.232	0.0745		0.35	0.1556	0
Pb-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0
Mg-D	mg/L	2.21	2.34	2.58	2.50	2.43	5	2.58	2.41			2.55	0
Mn-D	mg/L	0.0073	0.0060	0.006	0.0054	0.0043	5	0.0073	0.0058			0.0068	0
Mo-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Ni-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Ag-D	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100			0.000010	0
K-D	mg/L	0.192	0.193	0.209	0.214	0.204	5	0.214	0.202			0.212	0
S-D	mg/L	13.4	13.3	14.9	15.0	14.5	5	15.0	14.2			15	0
Se-D	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050			0.000050	0
Na-D	mg/L	4.81	4.76	5.46	5.36	5.11	5	5.46	5.10			5.42	0
Sr-D	mg/L	0.102	0.103	0.116	0.117	0.113	5	0.117	0.110			0.117	0
Zn-D	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0
N-NO23	mg/L	<0.020	<0.020	<0.020	<0.020	<0.020	5	<0.020	0.0100			0.01	0

Notes: *Calculated guideline. Refer to Exccedance Tables.

Factor applied to less-than results when calculating statistics: 0.5

Table 42 Spring Lakes 17 Page(s)

EMS ID		E292118								Water Quality Guidelines			
StnName		Lower Quinsam Lake 1M											Count of results
StnCode		LQL1											exceeding
		10-Apr-24	17-Apr-24	24-Apr-24	1-May-24	8-May-24	Count	Max	5 in 30 Ave	Chronic	Acute	90th Percentile	standard
SO4-D	mg/L	15	15	17	15	15	5	17	15.4	128		16.2	0
Turb	NTU	0.46	0.86	0.4	0.37	0.26	5	0.86	0.47			0.7	0
Alk-T	mg/L	30	30	32	31	31	5	32	30.8			31.6	0
Al-T	mg/L	0.0323	0.0248	0.0268	0.0213	0.0201	5	0.0323	0.0251	*		0.0301	0
As-T	mg/L	0.00061	0.00052	0.00047	0.00056	0.00056	5	0.00061	0.00054	0.005		0.00059	0
B-T	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250	1.2		0.025	0
Ba-T	mg/L	0.0031	0.0027	0.0025	0.0028	0.0028	5	0.0031	0.0028	1		0.003	0
Cd-T	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050			0.000005	0
Ca-T	mg/L	9.74	8.22	8.12	9.21	9.29	5	9.74	8.92			9.56	0
Cr-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Co-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.11	0.0001	0
Cu-T	mg/L	0.00059	<0.00050	<0.00050	0.00054	0.00052	5	0.00059	0.000430			0.00057	0
Fe-T	mg/L	0.074	0.061	0.057	0.067	0.053	5	0.074	0.062		1	0.071	0
Hard-T	mg/L	29.4	24.8	24.5	27.7	27.8	5	29.4	26.8			28.8	0
Pb-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.0176	0.0001	0
Mg-T	mg/L	1.24	1.03	1.03	1.14	1.12	5	1.24	1.11			1.2	0
Mn-T	mg/L	0.0047	0.0041	0.0038	0.0041	0.0037	5	0.0047	0.0041	0.737	0.8706	0.0045	0
P-T	mg/L	0.0039	0.0037	0.0044	0.0033	0.0046	5	0.0046	0.0040	0.015		0.0045	0
Mo-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	7.6	46	0.0005	0
Ni-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	0.025		0.0005	0
K-T	mg/L	0.176	0.150	0.143	0.163	0.162	5	0.176	0.159			0.171	0
S-T	mg/L	5.3	4.3	4.6	4.6	4.7	5	5.3	4.7			5.1	0
Se-T	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050	0.002		0.000050	0
Ag-T	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100	0.00005	0.0001	0.000010	0
Na-T	mg/L	7.05	5.87	6.28	6.72	6.88	5	7.05	6.56			6.98	0
Sr-T	mg/L	0.0428	0.0370	0.037	0.0405	0.0394	5	0.0428	0.0393			0.0419	0
Zn-T	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0
Al-D	mg/L	0.0299	0.0227	0.0194	0.0185	0.0174	5	0.0299	0.0216			0.027	0
As-D	mg/L	0.00057	0.00057	0.00053	0.00060	0.00059	5	0.00060	0.00057			0.0006	0
Ba-D	mg/L	0.0031	0.0031	0.0031	0.0030	0.003	5	0.0031	0.0031			0.0031	0
B-D	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250			0.025	0
Cd-D	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050	0.000087	0.00017	0.000005	0
Ca-D	mg/L	9.94	9.94	9.94	10.3	10.2	5	10.3	10.06			10.26	0
Cl-D	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	5	<1.0	0.50	150	600	0.5	0
Cr-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Co-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0
Cu-D	mg/L	0.00061	0.00056	0.00057	0.00051	0.00055	5	0.00061	0.00056	*	*	0.00059	5
DOC	mg/L	3.3	3.1	3.1	3.0	3.1	5	3.3	3.1			3.2	0
Hard-D	mg/L	30.0	29.8	29.9	30.7	30.8	5	30.8	30.2			30.8	0
Fe-D	mg/L	0.0570	0.0434	0.0462	0.0356	0.036	5	0.0570	0.0436		0.35	0.0527	0
Pb-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0
Mg-D	mg/L	1.25	1.22	1.23	1.23	1.3	5	1.3	1.25			1.28	0
Mn-D	mg/L	0.0036	0.0027	0.0014	0.0012	0.0014	5	0.0036	0.0021			0.0032	0
Mo-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Ni-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Ag-D	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100			0.000010	0
K-D	mg/L	0.179	0.182	0.183	0.186	0.183	5	0.186	0.183			0.185	0
S-D	mg/L	5.6	5.1	5.3	5.4	5.1	5	5.6	5.3			5.5	0
Se-D	mg/L	<0.00010	<0.00010	0.0001	<0.00010	<0.00010	5	0.0001	0.000060			0.000080	0
Na-D	mg/L	7.29	7.14	7.73	7.69	7.7	5	7.73	7.51			7.72	0
Sr-D	mg/L	0.0443	0.0451	0.0478	0.0480	0.0441	5	0.0480	0.0459			0.0479	0
Zn-D	mg/L	0.0082	<0.0050	<0.0050	<0.0050	<0.0050	5	0.0082	0.00364	0.0075	0.033	0.00592	1
N-NO23	mg/L	<0.020	<0.020	<0.020	<0.020	<0.020	5	<0.020	0.0100			0.01	0
Chlr-a	ug/L					1	1	1	1.0			1	0

Notes: *Calculated guideline. Refer to Exccedance Tables.
Factor applied to less-than results when calculating statistics: 0.5

Table 42 Spring Lakes 17 Page(s)

EMS ID		E292118								Water Quality Guidelines			Count of results exceeding standard
StnName		Lower Quinsam Lake 4M											
StnCode		LQL4											
		10-Apr-24	17-Apr-24	24-Apr-24	1-May-24	8-May-24	Count	Max	5 in 30 Ave	Chronic	Acute	90th Percentile	
SO4-D	mg/L	15	16	16	15	15	5	16	15.4	128		16	0
Turb	NTU	0.43	0.69	0.38	0.50	0.3	5	0.69	0.46			0.61	0
Alk-T	mg/L	30	31	43	31	33	5	43	33.6			39	0
Al-T	mg/L	0.0311	0.0270	0.0229	0.0230	0.0213	5	0.0311	0.0251	*		0.0295	0
As-T	mg/L	0.00059	0.00056	0.00057	0.00056	0.00063	5	0.00063	0.00058	0.005		0.00061	0
B-T	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250	1.2		0.025	0
Ba-T	mg/L	0.0029	0.0028	0.0029	0.0028	0.0028	5	0.0029	0.0028	1		0.0029	0
Cd-T	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050			0.000005	0
Ca-T	mg/L	9.28	8.70	9.33	8.90	9.36	5	9.36	9.11			9.35	0
Cr-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Co-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.11	0.0001	0
Cu-T	mg/L	0.00058	0.00052	0.00055	0.00053	0.00057	5	0.00058	0.00055			0.00058	0
Fe-T	mg/L	0.074	0.069	0.062	0.060	0.063	5	0.074	0.066		1	0.072	0
Hard-T	mg/L	28.0	26.3	28.2	26.9	28.3	5	28.3	27.5			28.3	0
Pb-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.0176	0.0001	0
Mg-T	mg/L	1.17	1.10	1.19	1.14	1.2	5	1.2	1.16			1.2	0
Mn-T	mg/L	0.0045	0.0048	0.0045	0.0042	0.0042	5	0.0048	0.0044	0.737	0.8706	0.0047	0
P-T	mg/L	0.0041	<0.0030	0.0041	0.0043	0.0042	5	0.0043	0.00364	0.015		0.00426	0
Mo-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	7.6	46	0.0005	0
Ni-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	0.025		0.0005	0
K-T	mg/L	0.167	0.159	0.171	0.163	0.169	5	0.171	0.166			0.17	0
S-T	mg/L	5.0	4.7	5	4.5	4.6	5	5	4.8			5	0
Se-T	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050	0.002		0.000050	0
Ag-T	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100	0.00005	0.0001	0.000010	0
Na-T	mg/L	6.57	6.41	7.5	6.66	7.23	5	7.5	6.87			7.39	0
Sr-T	mg/L	0.0403	0.0393	0.0435	0.0393	0.0394	5	0.0435	0.0404			0.0422	0
Zn-T	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0
Al-D	mg/L	0.0256	0.0214	0.0179	0.0197	0.0176	5	0.0256	0.0204			0.0239	0
As-D	mg/L	0.00057	0.00056	0.00053	0.00061	0.00062	5	0.00062	0.00058			0.00062	0
Ba-D	mg/L	0.0031	0.0031	0.003	0.0030	0.0031	5	0.0031	0.0031			0.0031	0
B-D	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250			0.025	0
Cd-D	mg/L	<0.000010	<0.000010	0.000011	<0.000010	<0.000010	5	0.000011	0.0000062	0.000087	0.00017	0.000009	0
Ca-D	mg/L	9.78	10.2	10.2	10.2	10.2	5	10.2	10.12			10.2	0
Cl-D	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	5	<1.0	0.50	150	600	0.5	0
Cr-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Co-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0
Cu-D	mg/L	0.00054	0.00057	0.00052	0.00051	0.00056	5	0.00057	0.00054	*	*	0.00057	5
DOC	mg/L	3.3	3.2	2.8	3.1	2.7	5	3.3	3.0			3.3	0
Hard-D	mg/L	29.5	30.5	30.7	30.6	30.8	5	30.8	30.4			30.8	0
Fe-D	mg/L	0.0497	0.0458	0.037	0.0365	0.0398	5	0.0497	0.0418		0.35	0.0481	0
Pb-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0
Mg-D	mg/L	1.23	1.24	1.24	1.23	1.29	5	1.29	1.25			1.27	0
Mn-D	mg/L	0.0033	0.0031	0.0014	0.0013	0.0014	5	0.0033	0.0021			0.0032	0
Mo-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Ni-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Ag-D	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100			0.000010	0
K-D	mg/L	0.174	0.179	0.185	0.199	0.183	5	0.199	0.184			0.193	0
S-D	mg/L	5.3	5.3	5.6	4.4	4.9	5	5.6	5.1			5.5	0
Se-D	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050			0.000050	0
Na-D	mg/L	7.24	7.16	7.98	7.90	7.74	5	7.98	7.60			7.95	0
Sr-D	mg/L	0.0428	0.0447	0.0477	0.0452	0.0442	5	0.0477	0.0449			0.0467	0
Zn-D	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0
N-NO23	mg/L	<0.020	<0.020	<0.020	<0.020	<0.020	5	<0.020	0.0100			0.01	0

Notes: *Calculated guideline. Refer to Exccedance Tables.

Factor applied to less-than results when calculating statistics: 0.5

Table 42 Spring Lakes 17 Page(s)

EMS ID		E292118								Water Quality Guidelines			Count of results exceeding standard
StnName		Lower Quinsam Lake 9M											
StnCode		LQL9											
		10-Apr-24	17-Apr-24	25-Apr-24	2-May-24	8-May-24	Count	Max	5 in 30 Ave	Chronic	Acute	90th Percentile	
SO4-D	mg/L	14	16	15	15	15	5	16	15.0	128		15.6	0
Turb	NTU	0.59	0.44	0.3	0.50	0.25	5	0.59	0.42			0.55	0
Alk-T	mg/L	30	31	31	31	32	5	32	31.0			31.6	0
Al-T	mg/L	0.0322	0.0272	0.0242	0.0236	0.0211	5	0.0322	0.0257	*		0.0302	0
As-T	mg/L	0.00055	0.00058	0.0005	0.00055	0.00055	5	0.00058	0.00055	0.005		0.00057	0
B-T	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250	1.2		0.025	0
Ba-T	mg/L	0.0029	0.0029	0.0028	0.0028	0.0027	5	0.0029	0.0028	1		0.0029	0
Cd-T	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050			0.000005	0
Ca-T	mg/L	8.88	8.82	8.59	9.04	8.89	5	9.04	8.84			8.98	0
Cr-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Co-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.11	0.0001	0
Cu-T	mg/L	0.00054	0.00054	0.00052	0.00054	0.0005	5	0.00054	0.00053			0.00054	0
Fe-T	mg/L	0.072	0.071	0.065	0.062	0.058	5	0.072	0.066		1	0.072	0
Hard-T	mg/L	26.9	26.8	26	27.3	26.8	5	27.3	26.8			27.1	0
Pb-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.0176	0.0001	0
Mg-T	mg/L	1.15	1.15	1.09	1.14	1.12	5	1.15	1.13			1.15	0
Mn-T	mg/L	0.0045	0.0052	0.005	0.0043	0.004	5	0.0052	0.0046	0.737	0.8706	0.0051	0
P-T	mg/L	0.0039	0.0033	0.0035	0.0030	0.0031	5	0.0039	0.0034	0.015		0.0037	0
Mo-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	7.6	46	0.0005	0
Ni-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	0.025		0.0005	0
K-T	mg/L	0.161	0.164	0.152	0.160	0.157	5	0.164	0.159			0.163	0
S-T	mg/L	4.7	4.8	4.5	4.5	4.5	5	4.8	4.6			4.8	0
Se-T	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050	0.002		0.000050	0
Ag-T	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100	0.00005	0.0001	0.000010	0
Na-T	mg/L	6.16	6.66	6.44	6.63	6.6	5	6.66	6.50			6.65	0
Sr-T	mg/L	0.0390	0.0410	0.039	0.0391	0.0379	5	0.0410	0.0392			0.0402	0
Zn-T	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0
Al-D	mg/L	0.0263	0.0211	0.0207	0.0193	0.0184	5	0.0263	0.0212			0.0242	0
As-D	mg/L	0.00055	0.00057	0.00054	0.00059	0.0006	5	0.0006	0.00057			0.0006	0
Ba-D	mg/L	0.0030	0.0031	0.0031	0.0030	0.003	5	0.0031	0.0030			0.0031	0
B-D	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250			0.025	0
Cd-D	mg/L	<0.000010	<0.000010	0.000018	<0.000010	<0.000010	5	0.000018	0.0000076	0.000087	0.00017	0.000013	0
Ca-D	mg/L	9.52	9.81	9.95	10.1	10.4	5	10.4	9.96			10.28	0
Cl-D	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	5	<1.0	0.50	150	600	0.5	0
Cr-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Co-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0
Cu-D	mg/L	0.00054	0.00055	0.00063	0.00054	0.00054	5	0.00063	0.00056	*	*	0.0006	5
DOC	mg/L	3.3	3.2	2.8	3.1	3	5	3.3	3.1			3.3	0
Hard-D	mg/L	28.8	29.5	29.9	30.4	31.2	5	31.2	30.0			30.9	0
Fe-D	mg/L	0.0508	0.0459	0.0412	0.0376	0.0382	5	0.0508	0.0427		0.35	0.0488	0
Pb-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0
Mg-D	mg/L	1.23	1.20	1.22	1.24	1.3	5	1.3	1.24			1.28	0
Mn-D	mg/L	0.0031	0.0031	0.0019	<0.0010	<0.0010	5	0.0031	0.00182			0.0031	0
Mo-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Ni-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Ag-D	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100			0.000010	0
K-D	mg/L	0.170	0.177	0.186	0.188	0.18	5	0.188	0.180			0.187	0
S-D	mg/L	5.0	5.4	5.5	4.0	5.4	5	5.5	5.1			5.5	0
Se-D	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050			0.000050	0
Na-D	mg/L	6.73	7.20	7.52	7.88	7.64	5	7.88	7.39			7.78	0
Sr-D	mg/L	0.0413	0.0444	0.0475	0.0477	0.0442	5	0.0477	0.0450			0.0476	0
Zn-D	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0
N-NO23	mg/L	<0.020	<0.020	<0.020	<0.020	0.021	5	0.021	0.0122			0.0166	0

Notes: *Calculated guideline. Refer to Exccedance Tables.

Factor applied to less-than results when calculating statistics: 0.5

Table 42 Spring Lakes 17 Page(s)

EMS ID		E292118								Water Quality Guidelines			
StnName		Lower Quinsam Lake 1MB											Count of results
StnCode		LQLB											exceeding
		10-Apr-24	17-Apr-24	25-Apr-24	2-May-24	8-May-24	Count	Max	5 in 30 Ave	Chronic	Acute	90th Percentile	standard
SO4-D	mg/L	15	16	15	15	15	5	16	15.2	128		15.6	0
Turb	NTU	0.66	0.52	0.39	0.65	0.48	5	0.66	0.54			0.66	0
Alk-T	mg/L	29	31	31	31	31	5	31	30.6			31	0
Al-T	mg/L	0.0329	0.0314	0.0282	0.0255	0.024	5	0.0329	0.0284	*		0.0323	0
As-T	mg/L	0.00059	0.00066	0.00061	0.00063	0.0007	5	0.0007	0.00064	0.005		0.00068	0
B-T	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250	1.2		0.025	0
Ba-T	mg/L	0.0029	0.0031	0.0031	0.0032	0.0036	5	0.0036	0.0032	1		0.0034	0
Cd-T	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050			0.000005	0
Ca-T	mg/L	8.69	9.02	9.06	9.29	9.32	5	9.32	9.08			9.31	0
Cr-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Co-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.11	0.0001	0
Cu-T	mg/L	0.00056	0.00055	0.00057	0.00070	0.00096	5	0.00096	0.00067			0.00086	0
Fe-T	mg/L	0.084	0.112	0.116	0.145	0.14	5	0.145	0.119		1	0.143	0
Hard-T	mg/L	26.4	27.3	27.5	28.1	28.1	5	28.1	27.5			28.1	0
Pb-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.0176	0.0001	0
Mg-T	mg/L	1.13	1.15	1.17	1.19	1.18	5	1.19	1.16			1.19	0
Mn-T	mg/L	0.0060	0.0114	0.0146	0.0150	0.0229	5	0.0229	0.0140	0.737	0.8706	0.0197	0
P-T	mg/L	0.0039	0.0039	0.0041	0.0034	0.0041	5	0.0041	0.0039	0.015		0.0041	0
Mo-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	7.6	46	0.0005	0
Ni-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	0.025		0.0005	0
K-T	mg/L	0.157	0.164	0.162	0.170	0.166	5	0.170	0.164			0.168	0
S-T	mg/L	4.4	4.7	4.8	4.8	4.7	5	4.8	4.7			4.8	0
Se-T	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050	0.002		0.000050	0
Ag-T	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100	0.00005	0.0001	0.000010	0
Na-T	mg/L	5.91	6.47	6.73	6.84	6.73	5	6.84	6.54			6.8	0
Sr-T	mg/L	0.0378	0.0408	0.0415	0.0408	0.04	5	0.0415	0.0402			0.0412	0
Zn-T	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0
Al-D	mg/L	0.0265	0.0215	0.0204	0.0188	0.017	5	0.0265	0.0208			0.0245	0
As-D	mg/L	0.00059	0.00062	0.00059	0.00068	0.00066	5	0.00068	0.00063			0.00067	0
Ba-D	mg/L	0.0031	0.0032	0.0033	0.0037	0.0035	5	0.0037	0.0034			0.0036	0
B-D	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250			0.025	0
Cd-D	mg/L	<0.000010	<0.000010	0.000013	<0.000010	<0.000010	5	0.000013	0.0000066	0.000087	0.00017	0.000010	0
Ca-D	mg/L	9.42	9.72	10.3	10.5	10.2	5	10.5	10.03			10.42	0
Cl-D	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	5	<1.0	0.50	150	600	0.5	0
Cr-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Co-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0
Cu-D	mg/L	0.00055	0.00054	0.00057	0.00058	0.00054	5	0.00058	0.00056	*	*	0.00058	5
DOC	mg/L	3.2	3.0	3.2	3.1	2.9	5	3.2	3.1			3.2	0
Hard-D	mg/L	28.4	29.2	30.7	31.7	31	5	31.7	30.2			31.4	0
Fe-D	mg/L	0.0571	0.0683	0.0681	0.0716	0.0812	5	0.0812	0.0693		0.35	0.0774	0
Pb-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0
Mg-D	mg/L	1.19	1.19	1.21	1.30	1.32	5	1.32	1.24			1.31	0
Mn-D	mg/L	0.0047	0.0093	0.0106	0.0102	0.0171	5	0.0171	0.0104			0.0145	0
Mo-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Ni-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0
Ag-D	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100			0.000010	0
K-D	mg/L	0.171	0.175	0.185	0.198	0.187	5	0.198	0.183			0.194	0
S-D	mg/L	4.9	4.9	5.2	3.8	5.1	5	5.2	4.8			5.2	0
Se-D	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050			0.000050	0
Na-D	mg/L	6.57	6.85	7.3	8.08	7.49	5	8.08	7.26			7.84	0
Sr-D	mg/L	0.0411	0.0439	0.0483	0.0485	0.0442	5	0.0485	0.0452			0.0484	0
Zn-D	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0
N-NO23	mg/L	<0.020	<0.020	<0.020	<0.020	0.034	5	0.034	0.0148			0.0244	0

Notes: *Calculated guideline. Refer to Exccedance Tables.

Factor applied to less-than results when calculating statistics: 0.5

Table 43 Spring Rivers 7 Page(s)

EMS ID		E217017								Water Quality Guidelines				
StnName		No Name Lake Outlet												
StnCode		NNO												
Date	Unit	28-Mar-24	3-Apr-24	8-Apr-24	15-Apr-24	22-Apr-24	Count	Max	5 in 30 Av	Chronic	Acute	90th Percentile	Count of results exceeding standard	Percent of results exceeding standard
pH-F	pH Units	6.88	7.03	7.23	7.25	7.25	5	7.25	7.13			7.25	0	0.0
Cond-F	uS/cm	28.1	29	29.8	32	29.4	5	32	29.7			31.1	0	0.0
SO4-D	mg/L	<1.0	<1.0	<1.0	<1.0	1.3	5	1.3	0.66	128		0.98	0	0.0
Cl-D	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	5	<1.0	0.50	150	600	0.5	0	0.0
TSS	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	5	<1.0	0.50			0.5	0	0.0
Alk-T	mg/L	10	11	11	11	11	5	11	10.8			11	0	0.0
Al-T	mg/L	0.0445	0.0424	0.0416	0.0374	0.034	5	0.0445	0.0400	*		0.0437	0	0.0
As-T	mg/L	0.00021	0.00021	0.00025	0.00022	0.0002	5	0.00025	0.00022	0.005		0.00024	0	0.0
Ba-T	mg/L	0.0012	<0.0010	<0.0010	<0.0010	<0.0010	5	0.0012	0.00064	1		0.00092	0	0.0
B-T	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250	1.2		0.025	0	0.0
Bicarb	mg/L	12	13	13	13	14	5	14	13.0			13.6	0	0.0
Cd-T	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050			5.00E-06	0	0.0
Ca-T	mg/L	3.02	3.03	3.25	3.04	3.28	5	3.28	3.12			3.27	0	0.0
Cr-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0	0.0
Co-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.11	0.0001	0	0.0
Cu-T	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	5	<0.00050	0.000250			0.00025	0	0.0
Hard-T	mg/L	10.2	10.4	11.1	10.4	10.9	5	11.1	10.6			11	0	0.0
Fe-T	mg/L	0.052	0.046	0.045	0.040	0.043	5	0.052	0.045		1	0.05	0	0.0
Pb-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.0176	0.0001	0	0.0
Mg-T	mg/L	0.650	0.683	0.731	0.677	0.657	5	0.731	0.680			0.712	0	0.0
Mn-T	mg/L	0.0028	0.0030	0.0030	0.0031	0.0036	5	0.0036	0.0031	0.737	0.8706	0.0034	0	0.0
Mo-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	7.6	46	0.0005	0	0.0
Ni-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	0.025		0.0005	0	0.0
K-T	mg/L	<0.050	<0.050	<0.050	0.053	<0.050	5	0.053	0.0306			0.0418	0	0.0
S-T	mg/L	<3.0	<3.0	<3.0	<3.0	<3.0	5	<3.0	1.50			1.5	0	0.0
Se-T	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050	0.002		5.00E-05	0	0.0
Ag-T	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100	0.00005	0.0001	1.00E-05	0	0.0
Na-T	mg/L	0.884	0.911	0.952	0.920	0.886	5	0.952	0.911			0.939	0	0.0
Sr-T	mg/L	0.0084	0.0090	0.0089	0.0090	0.0101	5	0.0101	0.0091			0.0097	0	0.0
Zn-T	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0	0.0
Al-D	mg/L	0.0397	0.0394	0.0387	0.0369	0.0364	5	0.0397	0.0382			0.0396	0	0.0
As-D	mg/L	0.00023	0.00021	0.00023	0.00022	0.00024	5	0.00024	0.00023			0.00024	0	0.0
Ba-D	mg/L	0.0013	0.0010	0.0010	0.0011	0.0012	5	0.0013	0.0011			0.0013	0	0.0
B-D	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250			0.025	0	0.0
Cd-D	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050	0.000087	0.00017	5.00E-06	0	0.0
Ca-D	mg/L	3.37	3.31	3.41	3.31	3.6	5	3.6	3.40			3.52	0	0.0
Cr-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0	0.0
Co-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0	0.0
Cu-D	mg/L	0.00045	0.00046	0.00047	0.00049	0.00049	5	0.00049	0.00047	*	*	0.00049	5	100.0
Hard-D	mg/L	11.5	11.2	11.7	11.3	12.4	5	12.4	11.6			12.1	0	0.0
DOC	mg/L	3.5	3.7	3.7	3.7	3.5	5	3.7	3.6			3.7	0	0.0
Fe-D	mg/L	0.0334	0.0322	0.0329	0.0356	0.0386	5	0.0386	0.0345		0.35	0.0374	0	0.0
Pb-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0	0.0
Mg-D	mg/L	0.754	0.711	0.763	0.747	0.839	5	0.839	0.763			0.809	0	0.0
Mn-D	mg/L	0.0026	0.0027	0.0027	0.0031	0.0036	5	0.0036	0.0029			0.0034	0	0.0
Mo-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0	0.0
Ni-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0	0.0
K-D	mg/L	0.057	0.056	0.054	0.051	0.056	5	0.057	0.055			0.057	0	0.0
S-D	mg/L	<3.0	<3.0	<3.0	<3.0	<3.0	5	<3.0	1.50			1.5	0	0.0
Se-D	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050			5.00E-05	0	0.0
Na-D	mg/L	0.981	1.01	1.01	1.02	1.08	5	1.08	1.020			1.056	0	0.0
Sr-D	mg/L	0.0092	0.0099	0.0100	0.0101	0.0107	5	0.0107	0.0100			0.0105	0	0.0
Zn-D	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0	0.0

Notes: *Calculated guideline. See Exceedance Table.

Factor applied to less-than results when calculating statistics: 0.5

Table 43 Spring Rivers 7 Page(s)

EMS ID		E219412								Water Quality Guidelines				
StnName		Long Lake Outlet												
StnCode		LLO												
Date	Unit	28-Mar-24	3-Apr-24	8-Apr-24	15-Apr-24	22-Apr-24	Count	Max	5 in 30 Av	Chronic	Acute	90th Percentile	Count of results exceeding standard	Percent of results exceeding standard
pH-F	pH Units	7.14	7.08	7.46	7.37	7.45	5	7.46	7.30			7.46	0	0.0
Cond-F	uS/cm	137.3	117.2	140.1	122.8	141.5	5	141.5	131.8			140.9	0	0.0
SO4-D	mg/L	37	36	43	38	42	5	43	39.2	128		42.6	0	0.0
Cl-D	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	5	<1.0	0.50	150	600	0.5	0	0.0
TSS	mg/L	<1.0	<1.0	<1.0	<1.0	1.6	5	1.6	0.72			1.16	0	0.0
Alk-T	mg/L	22	22	23	23	24	5	24	22.8			23.6	0	0.0
Al-T	mg/L	0.0393	0.0419	0.0333	0.0320	0.025	5	0.0419	0.0343	*		0.0409	0	0.0
As-T	mg/L	0.00031	0.00033	0.00036	0.00032	0.00031	5	0.00036	0.00033	0.005		0.00035	0	0.0
Ba-T	mg/L	0.0039	0.0035	0.0040	0.0035	0.0039	5	0.0040	0.0038	1		0.004	0	0.0
B-T	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250	1.2		0.025	0	0.0
Bicarb	mg/L	27	27	28	28	29	5	29	27.8			28.6	0	0.0
Cd-T	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050			5.00E-06	0	0.0
Ca-T	mg/L	15.6	13.9	17.3	13.7	16.2	5	17.3	15.3			16.9	0	0.0
Cr-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0	0.0
Co-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.11	0.0001	0	0.0
Cu-T	mg/L	<0.00050	0.00051	0.00103	<0.00050	<0.00050	5	0.00103	0.000458			0.000822	0	0.0
Hard-T	mg/L	47.5	42.6	52.8	42.3	48.3	5	52.8	46.7			51	0	0.0
Fe-T	mg/L	0.065	0.069	0.059	0.054	0.05	5	0.069	0.059		1	0.067	0	0.0
Pb-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.0176	0.0001	0	0.0
Mg-T	mg/L	2.05	1.88	2.31	1.98	1.94	5	2.31	2.03			2.21	0	0.0
Mn-T	mg/L	0.0072	0.0093	0.0058	0.0057	0.0068	5	0.0093	0.0070	0.737	0.8706	0.0085	0	0.0
Mo-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	7.6	46	0.0005	0	0.0
Ni-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	0.025		0.0005	0	0.0
K-T	mg/L	0.178	0.166	0.190	0.172	0.169	5	0.190	0.175			0.185	0	0.0
S-T	mg/L	12.4	10.8	13.4	11.4	11.4	5	13.4	11.9			13	0	0.0
Se-T	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050	0.002		5.00E-05	0	0.0
Ag-T	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100	0.00005	0.0001	1.00E-05	0	0.0
Na-T	mg/L	4.45	3.93	4.74	3.99	4.36	5	4.74	4.29			4.62	0	0.0
Sr-T	mg/L	0.0958	0.0844	0.100	0.0879	0.098	5	0.100	0.0932			0.0992	0	0.0
Zn-T	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0	0.0
Al-D	mg/L	0.0306	0.0321	0.0297	0.0282	0.0246	5	0.0321	0.0290			0.0315	0	0.0
As-D	mg/L	0.00030	0.00029	0.00032	0.00033	0.00032	5	0.00033	0.00031			0.00033	0	0.0
Ba-D	mg/L	0.0040	0.0037	0.0045	0.0041	0.0045	5	0.0045	0.0042			0.0045	0	0.0
B-D	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250			0.025	0	0.0
Cd-D	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050	0.000087	0.00017	5.00E-06	0	0.0
Ca-D	mg/L	16.5	14.9	18.0	15.4	17.9	5	18.0	16.5			18	0	0.0
Cr-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0	0.0
Co-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0	0.0
Cu-D	mg/L	0.00039	0.00042	0.00043	0.00042	0.00044	5	0.00044	0.00042	*	*	0.00044	5	100.0
Hard-D	mg/L	50.5	45.6	54.8	47.6	55.1	5	55.1	50.7			55	0	0.0
DOC	mg/L	3.5	3.5	4.0	3.5	3.3	5	4.0	3.6			3.8	0	0.0
Fe-D	mg/L	0.0436	0.0397	0.0457	0.0378	0.0355	5	0.0457	0.0405		0.35	0.0449	0	0.0
Pb-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0	0.0
Mg-D	mg/L	2.23	2.04	2.41	2.21	2.5	5	2.5	2.28			2.46	0	0.0
Mn-D	mg/L	0.0047	0.0046	0.0049	0.0043	0.0037	5	0.0049	0.0044			0.0048	0	0.0
Mo-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0	0.0
Ni-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0	0.0
K-D	mg/L	0.188	0.179	0.206	0.192	0.206	5	0.206	0.194			0.206	0	0.0
S-D	mg/L	12.6	11.8	14.8	13.0	14.8	5	14.8	13.4			14.8	0	0.0
Se-D	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050			5.00E-05	0	0.0
Na-D	mg/L	4.51	4.24	4.99	4.57	5.22	5	5.22	4.71			5.13	0	0.0
Sr-D	mg/L	0.0961	0.0945	0.111	0.102	0.113	5	0.113	0.1033			0.1122	0	0.0
Zn-D	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0	0.0

Notes: *Calculated guideline. See Exceedance Table.

Factor applied to less-than results when calculating statistics: 0.5

Table 43 Spring Rivers 7 Page(s)

EMS ID		E0126402								Water Quality Guidelines				
StnName		Quinsam River at Argonaut Road												
StnCode		WA												
Date	Unit	28-Mar-24	3-Apr-24	8-Apr-24	15-Apr-24	22-Apr-24	Count	Max	5 in 30 Av	Chronic	Acute	90th Percentile	Count of results exceeding standard	Percent of results exceeding standard
pH-F	pH Units	7.61	7.48	7.6	7.72	7.55	5	7.72	7.59			7.68	0	0.0
Cond-F	uS/cm	43.9	43.6	44.4	48.2	45	5	48.2	45.0			46.9	0	0.0
SO4-D	mg/L	<1.0	<1.0	<1.0	<1.0	1	5	1	0.60	128		0.8	0	0.0
Cl-D	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	5	<1.0	0.50	150	600	0.5	0	0.0
TSS	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	5	<1.0	0.50			0.5	0	0.0
Alk-T	mg/L	18	18	20	20	21	5	21	19.4			20.6	0	0.0
Al-T	mg/L	0.0227	0.0322	0.0200	0.0179	0.0183	5	0.0322	0.0222	*		0.0284	0	0.0
As-T	mg/L	<0.00010	0.00010	0.00013	<0.00010	<0.00010	5	0.00013	0.000076	0.005		0.000118	0	0.0
Ba-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	1		0.0005	0	0.0
B-T	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250	1.2		0.025	0	0.0
Bicarb	mg/L	22	22	25	25	25	5	25	23.8			25	0	0.0
Cd-T	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050			5.00E-06	0	0.0
Ca-T	mg/L	6.23	5.82	6.02	5.73	6.17	5	6.23	5.99			6.21	0	0.0
Cr-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0	0.0
Co-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.11	0.0001	0	0.0
Cu-T	mg/L	0.00058	0.00066	0.00059	0.00063	0.00056	5	0.00066	0.00060			0.00065	0	0.0
Hard-T	mg/L	18.2	17.2	17.8	16.9	18.2	5	18.2	17.7			18.2	0	0.0
Fe-T	mg/L	0.011	0.022	0.010	<0.010	<0.010	5	0.022	0.0106		1	0.0176	0	0.0
Pb-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.0176	0.0001	0	0.0
Mg-T	mg/L	0.649	0.635	0.668	0.622	0.678	5	0.678	0.650			0.674	0	0.0
Mn-T	mg/L	<0.0010	0.0012	<0.0010	<0.0010	<0.0010	5	0.0012	0.00064	0.737	0.8706	0.00092	0	0.0
Mo-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	7.6	46	0.0005	0	0.0
Ni-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	0.025		0.0005	0	0.0
K-T	mg/L	0.053	0.054	0.052	0.053	0.052	5	0.054	0.053			0.054	0	0.0
S-T	mg/L	<3.0	<3.0	<3.0	<3.0	<3.0	5	<3.0	1.50			1.5	0	0.0
Se-T	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050	0.002		5.00E-05	0	0.0
Ag-T	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100	0.00005	0.0001	1.00E-05	0	0.0
Na-T	mg/L	0.596	0.595	0.577	0.544	0.606	5	0.606	0.584			0.602	0	0.0
Sr-T	mg/L	0.0096	0.0096	0.0090	0.0092	0.0097	5	0.0097	0.0094			0.0097	0	0.0
Zn-T	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0	0.0
Al-D	mg/L	0.0198	0.0201	0.0193	0.0178	0.018	5	0.0201	0.0190			0.02	0	0.0
As-D	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050			5.00E-05	0	0.0
Ba-D	mg/L	0.0012	<0.0010	<0.0010	<0.0010	<0.0010	5	0.0012	0.00064			0.00092	0	0.0
B-D	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250			0.025	0	0.0
Cd-D	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050	0.000087	0.00017	5.00E-06	0	0.0
Ca-D	mg/L	6.61	6.31	6.40	6.22	6.97	5	6.97	6.50			6.83	0	0.0
Cr-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0	0.0
Co-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0	0.0
Cu-D	mg/L	0.00063	0.00061	0.00063	0.00064	0.00062	5	0.00064	0.00063	*	*	0.00064	5	100.0
Hard-D	mg/L	19.6	18.6	19.0	18.4	20.4	5	20.4	19.2			20.1	0	0.0
DOC	mg/L	2.5	2.3	2.6	2.3	2.2	5	2.6	2.4			2.6	0	0.0
Fe-D	mg/L	0.0074	0.0087	0.0076	0.0065	0.0064	5	0.0087	0.0073		0.35	0.0083	0	0.0
Pb-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0	0.0
Mg-D	mg/L	0.745	0.686	0.722	0.706	0.735	5	0.745	0.719			0.741	0	0.0
Mn-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0	0.0
Mo-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0	0.0
Ni-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0	0.0
K-D	mg/L	0.062	0.063	0.058	0.056	0.057	5	0.063	0.059			0.063	0	0.0
S-D	mg/L	<3.0	<3.0	<3.0	<3.0	<3.0	5	<3.0	1.50			1.5	0	0.0
Se-D	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050			5.00E-05	0	0.0
Na-D	mg/L	0.629	0.683	0.650	0.623	0.655	5	0.683	0.648			0.672	0	0.0
Sr-D	mg/L	0.0104	0.0107	0.0107	0.0106	0.0107	5	0.0107	0.0106			0.0107	0	0.0
Zn-D	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0	0.0

Notes: *Calculated guideline. See Exceedance Table.

Factor applied to less-than results when calculating statistics: 0.5

Table 43 Spring Rivers 7 Page(s)

EMS ID		E0900504								Water Quality Guidelines				
StnName		Middle Quinsam Lake Outlet												
StnCode		WB												
Date	Unit	28-Mar-24	3-Apr-24	8-Apr-24	15-Apr-24	22-Apr-24	Count	Max	5 in 30 Av	Chronic	Acute	90th Percentile	Count of results exceeding standard	Percent of results exceeding standard
pH-F	pH Units	7.43	7.36	7.6	7.46	7.62	5	7.62	7.49			7.61	0	0.0
Cond-F	uS/cm	136.5	126	131	120.7	108.8	5	136.5	124.6			134.3	0	0.0
SO4-D	mg/L	24	27	27	24	19	5	27	24.2	128		27	0	0.0
Cl-D	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	5	<1.0	0.50	150	600	0.5	0	0.0
TSS	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	5	<1.0	0.50			0.5	0	0.0
Alk-T	mg/L	36	35	36	36	33	5	36	35.2			36	0	0.0
Al-T	mg/L	0.0193	0.0204	0.0194	0.0162	0.0138	5	0.0204	0.0178	*		0.02	0	0.0
As-T	mg/L	0.00012	0.00014	0.00019	0.00011	0.00011	5	0.00019	0.00013	0.005		0.00017	0	0.0
Ba-T	mg/L	0.0022	0.0019	0.0019	0.0015	0.0013	5	0.0022	0.0018	1		0.0021	0	0.0
B-T	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250	1.2		0.025	0	0.0
Bicarb	mg/L	44	43	44	44	40	5	44	43.0			44	0	0.0
Cd-T	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050			5.00E-06	0	0.0
Ca-T	mg/L	10.6	10.9	11.8	9.43	8.95	5	11.8	10.34			11.44	0	0.0
Cr-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0	0.0
Co-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.11	0.0001	0	0.0
Cu-T	mg/L	0.00052	0.00057	0.00054	<0.00050	<0.00050	5	0.00057	0.000426			0.000558	0	0.0
Hard-T	mg/L	31.8	32.9	35.6	28.7	26.5	5	35.6	31.1			34.5	0	0.0
Fe-T	mg/L	0.025	0.029	0.029	0.024	0.022	5	0.029	0.026		1	0.029	0	0.0
Pb-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.0176	0.0001	0	0.0
Mg-T	mg/L	1.32	1.38	1.51	1.24	1.01	5	1.51	1.29			1.46	0	0.0
Mn-T	mg/L	0.0031	0.0035	0.0038	0.0034	0.0036	5	0.0038	0.0035	0.737	0.8706	0.0037	0	0.0
Mo-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	7.6	46	0.0005	0	0.0
Ni-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	0.025		0.0005	0	0.0
K-T	mg/L	0.184	0.190	0.194	0.183	0.153	5	0.194	0.181			0.192	0	0.0
S-T	mg/L	8.0	8.1	8.5	7.5	5.9	5	8.5	7.6			8.3	0	0.0
Se-T	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050	0.002		5.00E-05	0	0.0
Ag-T	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100	0.00005	0.0001	1.00E-05	0	0.0
Na-T	mg/L	10.9	10.4	11.0	10.2	7.94	5	11.0	10.09			10.96	0	0.0
Sr-T	mg/L	0.0521	0.0545	0.0600	0.0464	0.0438	5	0.0600	0.0514			0.0578	0	0.0
Zn-T	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0	0.0
Al-D	mg/L	0.0178	0.0176	0.0166	0.0156	0.015	5	0.0178	0.0165			0.0177	0	0.0
As-D	mg/L	0.00013	0.00014	0.00015	0.00013	0.00012	5	0.00015	0.00013			0.00015	0	0.0
Ba-D	mg/L	0.0023	0.0021	0.0021	0.0018	0.0016	5	0.0023	0.0020			0.0022	0	0.0
B-D	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250			0.025	0	0.0
Cd-D	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050	0.000087	0.00017	5.00E-06	0	0.0
Ca-D	mg/L	11.8	11.9	12.2	10.8	10.4	5	12.2	11.4			12.1	0	0.0
Cr-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0	0.0
Co-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0	0.0
Cu-D	mg/L	0.00052	0.00052	0.00051	0.00054	0.00057	5	0.00057	0.00053	*	*	0.00056	5	100.0
Hard-D	mg/L	35.7	36.0	37.0	32.8	31.3	5	37.0	34.6			36.6	0	0.0
DOC	mg/L	2.7	2.4	2.5	2.3	2.5	5	2.7	2.5			2.6	0	0.0
Fe-D	mg/L	0.0207	0.0212	0.0212	0.0183	0.0197	5	0.0212	0.0202		0.35	0.0212	0	0.0
Pb-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0	0.0
Mg-D	mg/L	1.51	1.55	1.60	1.42	1.33	5	1.60	1.48			1.58	0	0.0
Mn-D	mg/L	0.0026	0.0028	0.0026	0.0026	0.0024	5	0.0028	0.0026			0.0027	0	0.0
Mo-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0	0.0
Ni-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0	0.0
K-D	mg/L	0.206	0.210	0.212	0.201	0.176	5	0.212	0.201			0.211	0	0.0
S-D	mg/L	8.6	9.0	9.3	8.3	6.9	5	9.3	8.4			9.2	0	0.0
Se-D	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050			5.00E-05	0	0.0
Na-D	mg/L	11.6	11.4	11.5	11.6	9.66	5	11.6	11.15			11.6	0	0.0
Sr-D	mg/L	0.0573	0.0613	0.0677	0.0540	0.0479	5	0.0677	0.0576			0.0651	0	0.0
Zn-D	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0	0.0

Notes: *Calculated guideline. See Exceedance Table.

Factor applied to less-than results when calculating statistics: 0.5

Table 43 Spring Rivers 7 Page(s)

EMS ID		E286930								Water Quality Guidelines				
StnName		Quinsam River Downstream 1												
StnCode		QRDS1												
Date	Unit	28-Mar-24	3-Apr-24	8-Apr-24	15-Apr-24	22-Apr-24	Count	Max	5 in 30 Av	Chronic	Acute	90th Percentile	Count of results exceeding standard	Percent of results exceeding standard
pH-F	pH Units	7.45	7.35	7.59	7.98	8.03	5	8.03	7.68			8.01	0	0.0
Cond-F	uS/cm	139.9	134.9	139.4	145.9	116.2	5	145.9	135.3			143.5	0	0.0
SO4-D	mg/L	24	27	27	25	20	5	27	24.6	128		27	0	0.0
Cl-D	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	5	<1.0	0.50	150	600	0.5	0	0.0
TSS	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	5	<1.0	0.50			0.5	0	0.0
Alk-T	mg/L	37	37	38	38	35	5	38	37.0			38	0	0.0
Al-T	mg/L	0.0223	0.0212	0.0208	0.0185	0.0155	5	0.0223	0.0197	*		0.0219	0	0.0
As-T	mg/L	0.00052	0.00055	0.00060	0.00056	0.00041	5	0.00060	0.00053	0.005		0.00058	0	0.0
Ba-T	mg/L	0.0025	0.0024	0.0024	0.0022	0.0019	5	0.0025	0.0023	1		0.0025	0	0.0
B-T	mg/L	<0.050	0.054	0.053	<0.050	<0.050	5	0.054	0.0364	1.2		0.0536	0	0.0
Bicarb	mg/L	45	45	46	46	43	5	46	45.0			46	0	0.0
Cd-T	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050			5.00E-06	0	0.0
Ca-T	mg/L	10.6	10.9	11.8	10.2	9.26	5	11.8	10.55			11.44	0	0.0
Cr-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0	0.0
Co-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.11	0.0001	0	0.0
Cu-T	mg/L	<0.00050	0.00058	0.00053	0.00052	<0.00050	5	0.00058	0.000426			0.00056	0	0.0
Hard-T	mg/L	32.0	33.3	36.0	31.4	27.6	5	36.0	32.1			34.9	0	0.0
Fe-T	mg/L	0.038	0.034	0.037	0.032	0.027	5	0.038	0.034		1	0.038	0	0.0
Pb-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.0176	0.0001	0	0.0
Mg-T	mg/L	1.32	1.49	1.56	1.42	1.08	5	1.56	1.37			1.53	0	0.0
Mn-T	mg/L	0.0026	0.0028	0.0030	0.0030	0.0029	5	0.0030	0.0029	0.737	0.8706	0.003	0	0.0
Mo-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	7.6	46	0.0005	0	0.0
Ni-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	0.025		0.0005	0	0.0
K-T	mg/L	0.198	0.210	0.218	0.216	0.169	5	0.218	0.202			0.217	0	0.0
S-T	mg/L	7.7	8.3	8.6	7.9	6	5	8.6	7.7			8.5	0	0.0
Se-T	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050	0.002		5.00E-05	0	0.0
Ag-T	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100	0.00005	0.0001	1.00E-05	0	0.0
Na-T	mg/L	10.9	11.5	12.3	11.6	9.03	5	12.3	11.07			12.02	0	0.0
Sr-T	mg/L	0.0568	0.0567	0.0630	0.0531	0.0465	5	0.0630	0.0552			0.0605	0	0.0
Zn-T	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0	0.0
Al-D	mg/L	0.0181	0.0174	0.0174	0.0148	0.0137	5	0.0181	0.0163			0.0178	0	0.0
As-D	mg/L	0.00052	0.00053	0.00053	0.00048	0.00046	5	0.00053	0.00050			0.00053	0	0.0
Ba-D	mg/L	0.0025	0.0026	0.0025	0.0024	0.0021	5	0.0026	0.0024			0.0026	0	0.0
B-D	mg/L	0.050	0.052	0.052	<0.050	<0.050	5	0.052	0.0408			0.052	0	0.0
Cd-D	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	0.000014	5	0.000014	0.0000068	0.000087	0.00017	1.04E-05	0	0.0
Ca-D	mg/L	11.4	11.8	12.0	11.1	10.7	5	12.0	11.4			11.9	0	0.0
Cr-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0	0.0
Co-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0	0.0
Cu-D	mg/L	0.00054	0.00051	0.00052	0.00055	0.00052	5	0.00055	0.00053	*	*	0.00055	5	100.0
Hard-D	mg/L	35.0	36.1	36.4	33.8	32.6	5	36.4	34.8			36.3	0	0.0
DOC	mg/L	2.8	2.8	2.8	2.5	2.5	5	2.8	2.7			2.8	0	0.0
Fe-D	mg/L	0.0243	0.0225	0.0233	0.0214	0.0188	5	0.0243	0.0221		0.35	0.0239	0	0.0
Pb-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0	0.0
Mg-D	mg/L	1.56	1.59	1.58	1.46	1.43	5	1.59	1.52			1.59	0	0.0
Mn-D	mg/L	0.0019	0.0018	0.0016	0.0017	0.0015	5	0.0019	0.0017			0.0019	0	0.0
Mo-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0	0.0
Ni-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0	0.0
K-D	mg/L	0.218	0.230	0.231	0.220	0.201	5	0.231	0.220			0.231	0	0.0
S-D	mg/L	8.7	9.2	9.8	8.3	7.4	5	9.8	8.7			9.6	0	0.0
Se-D	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050			5.00E-05	0	0.0
Na-D	mg/L	12.6	12.5	12.7	12.5	11.4	5	12.7	12.3			12.7	0	0.0
Sr-D	mg/L	0.0590	0.0622	0.0678	0.0569	0.0501	5	0.0678	0.0592			0.0656	0	0.0
Zn-D	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0	0.0

Notes: *Calculated guideline. See Exceedance Table.

Factor applied to less-than results when calculating statistics: 0.5

Table 43 Spring Rivers 7 Page(s)

EMS ID		E292113								Water Quality Guidelines				
StnName		7 South Quinsam River												
StnCode		7SQR												
Date	Unit	28-Mar-24	3-Apr-24	8-Apr-24	15-Apr-24	22-Apr-24	Count	Max	5 in 30 Av	Chronic	Acute	90th Percentile	Count of results exceeding standard	Percent of results exceeding standard
pH-F	pH Units	7.19	7.24	7.6	7.26	7.57	5	7.6	7.37			7.59	0	0.0
Cond-F	uS/cm	130.8	128.7	139.1	131	125.9	5	139.1	131.1			135.9	0	0.0
SO4-D	mg/L	24	25	26	25	19	5	26	23.8	128		25.6	0	0.0
Cl-D	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	5	<1.0	0.50	150	600	0.5	0	0.0
TSS	mg/L	<1.0	1.6	<1.0	<1.0	<1.0	5	1.6	0.72			1.16	0	0.0
Alk-T	mg/L	35	37	37	37	36	5	37	36.4			37	0	0.0
Al-T	mg/L	0.0269	0.0266	0.0246	0.0223	0.0248	5	0.0269	0.0250	*		0.0268	0	0.0
As-T	mg/L	0.00053	0.00054	0.00060	0.00052	0.00047	5	0.00060	0.00053	0.005		0.00058	0	0.0
Ba-T	mg/L	0.0028	0.0025	0.0025	0.0022	0.0022	5	0.0028	0.0024	1		0.0027	0	0.0
B-T	mg/L	<0.050	0.051	0.054	<0.050	<0.050	5	0.054	0.0360	1.2		0.0528	0	0.0
Bicarb	mg/L	43	45	46	46	44	5	46	44.8			46	0	0.0
Cd-T	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050			5.00E-06	0	0.0
Ca-T	mg/L	11.2	10.5	11.9	10.1	10.3	5	11.9	10.8			11.6	0	0.0
Cr-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0	0.0
Co-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.11	0.0001	0	0.0
Cu-T	mg/L	<0.00050	0.00057	0.00055	<0.00050	0.00051	5	0.00057	0.000426			0.000562	0	0.0
Hard-T	mg/L	33.7	32.1	36.3	30.6	31.1	5	36.3	32.8			35.3	0	0.0
Fe-T	mg/L	0.071	0.068	0.071	0.067	0.071	5	0.071	0.070		1	0.071	0	0.0
Pb-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.0176	0.0001	0	0.0
Mg-T	mg/L	1.42	1.45	1.57	1.34	1.32	5	1.57	1.42			1.52	0	0.0
Mn-T	mg/L	0.0044	0.0043	0.0045	0.0041	0.0046	5	0.0046	0.0044	0.737	0.8706	0.0046	0	0.0
Mo-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	7.6	46	0.0005	0	0.0
Ni-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	0.025		0.0005	0	0.0
K-T	mg/L	0.201	0.205	0.220	0.202	0.183	5	0.220	0.202			0.214	0	0.0
S-T	mg/L	8.0	7.9	8.6	7.6	6.6	5	8.6	7.7			8.4	0	0.0
Se-T	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050	0.002		5.00E-05	0	0.0
Ag-T	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100	0.00005	0.0001	1.00E-05	0	0.0
Na-T	mg/L	10.8	11.0	12.4	10.8	10.2	5	12.4	11.0			11.8	0	0.0
Sr-T	mg/L	0.0585	0.0543	0.0618	0.0497	0.0459	5	0.0618	0.0540			0.0605	0	0.0
Zn-T	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0	0.0
Al-D	mg/L	0.0194	0.0202	0.0166	0.0145	0.0132	5	0.0202	0.0168			0.0199	0	0.0
As-D	mg/L	0.00053	0.00054	0.00055	0.00052	0.00046	5	0.00055	0.00052			0.00055	0	0.0
Ba-D	mg/L	0.0027	0.0027	0.0027	0.0025	0.0023	5	0.0027	0.0026			0.0027	0	0.0
B-D	mg/L	<0.050	0.052	0.053	<0.050	<0.050	5	0.053	0.0360			0.0526	0	0.0
Cd-D	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050	0.000087	0.00017	5.00E-06	0	0.0
Ca-D	mg/L	11.7	11.4	11.8	11.1	11.5	5	11.8	11.5			11.8	0	0.0
Cr-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0	0.0
Co-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0	0.0
Cu-D	mg/L	0.00053	0.00054	0.00052	0.00052	0.00054	5	0.00054	0.00053	*	*	0.00054	5	100.0
Hard-D	mg/L	35.9	34.8	35.9	33.8	34.6	5	35.9	35.0			35.9	0	0.0
DOC	mg/L	2.6	2.9	2.5	2.4	2.2	5	2.9	2.5			2.8	0	0.0
Fe-D	mg/L	0.0549	0.0475	0.0443	0.0434	0.0409	5	0.0549	0.0462		0.35	0.0519	0	0.0
Pb-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0	0.0
Mg-D	mg/L	1.63	1.55	1.55	1.49	1.44	5	1.63	1.53			1.6	0	0.0
Mn-D	mg/L	0.0041	0.0040	0.0035	0.0035	0.0036	5	0.0041	0.0037			0.0041	0	0.0
Mo-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0	0.0
Ni-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0	0.0
K-D	mg/L	0.212	0.226	0.229	0.216	0.199	5	0.229	0.216			0.228	0	0.0
S-D	mg/L	8.8	8.8	8.9	8.2	7.1	5	8.9	8.4			8.9	0	0.0
Se-D	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050			5.00E-05	0	0.0
Na-D	mg/L	11.7	11.9	12.3	11.9	11.2	5	12.3	11.8			12.1	0	0.0
Sr-D	mg/L	0.0585	0.0595	0.0649	0.0567	0.0502	5	0.0649	0.0580			0.0627	0	0.0
Zn-D	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0	0.0

Notes: *Calculated guideline. See Exceedance Table.

Factor applied to less-than results when calculating statistics: 0.5

Table 43 Spring Rivers 7 Page(s)

EMS ID		E299256								Water Quality Guidelines				
StnName		Iron River & Quinsam River												
StnCode		IRQR												
Date	Unit	28-Mar-24	3-Apr-24	8-Apr-24	15-Apr-24	22-Apr-24	Count	Max	5 in 30 Av	Chronic	Acute	90th Percentile	Count of results exceeding standard	Percent of results exceeding standard
pH-F	pH Units	7.41	7.56	7.45	7.18	7.52	5	7.56	7.42			7.54	0	0.0
Cond-F	uS/cm	99.5	106.9	114.7	107.1	112.4	5	114.7	108.1			113.8	0	0.0
SO4-D	mg/L	16	16	20	18	16	5	20	17.2	128		19.2	0	0.0
Cl-D	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	5	<1.0	0.50	150	600	0.5	0	0.0
TSS	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	5	<1.0	0.50			0.5	0	0.0
Alk-T	mg/L	32	31	36	35	35	5	36	33.8			35.6	0	0.0
Al-T	mg/L	0.0353	0.0414	0.0245	0.0240	0.022	5	0.0414	0.0294	*		0.039	0	0.0
As-T	mg/L	0.00067	0.00070	0.00070	0.00066	0.00058	5	0.00070	0.00066	0.005		0.0007	0	0.0
Ba-T	mg/L	0.0032	0.0032	0.0026	0.0027	0.0024	5	0.0032	0.0028	1		0.0032	0	0.0
B-T	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250	1.2		0.025	0	0.0
Bicarb	mg/L	39	38	44	43	42	5	44	41.2			43.6	0	0.0
Cd-T	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050			5.00E-06	0	0.0
Ca-T	mg/L	9.75	10.5	9.76	9.67	9.64	5	10.5	9.86			10.2	0	0.0
Cr-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0	0.0
Co-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.11	0.0001	0	0.0
Cu-T	mg/L	0.00056	0.00070	<0.00050	0.00052	<0.00050	5	0.00070	0.000456			0.000644	0	0.0
Hard-T	mg/L	29.0	31.3	29.3	29.0	28.8	5	31.3	29.5			30.5	0	0.0
Fe-T	mg/L	0.056	0.060	0.052	0.051	0.05	5	0.060	0.054		1	0.058	0	0.0
Pb-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.0176	0.0001	0	0.0
Mg-T	mg/L	1.14	1.24	1.21	1.18	1.14	5	1.24	1.18			1.23	0	0.0
Mn-T	mg/L	0.0030	0.0031	0.0030	0.0030	0.0034	5	0.0034	0.0031	0.737	0.8706	0.0033	0	0.0
Mo-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	7.6	46	0.0005	0	0.0
Ni-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	0.025		0.0005	0	0.0
K-T	mg/L	0.170	0.186	0.171	0.178	0.16	5	0.186	0.173			0.183	0	0.0
S-T	mg/L	5.3	5.5	5.4	5.4	5	5	5.5	5.3			5.5	0	0.0
Se-T	mg/L	<0.00010	0.00010	<0.00010	<0.00010	<0.00010	5	0.00010	0.000060	0.002		8.00E-05	0	0.0
Ag-T	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100	0.00005	0.0001	1.00E-05	0	0.0
Na-T	mg/L	7.03	7.62	7.99	7.89	7.72	5	7.99	7.65			7.95	0	0.0
Sr-T	mg/L	0.0429	0.0469	0.0430	0.0437	0.0397	5	0.0469	0.0432			0.0456	0	0.0
Zn-T	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0	0.0
Al-D	mg/L	0.0290	0.0305	0.0210	0.0199	0.0154	5	0.0305	0.0232			0.0299	0	0.0
As-D	mg/L	0.00068	0.00064	0.00072	0.00070	0.00063	5	0.00072	0.00067			0.00071	0	0.0
Ba-D	mg/L	0.0034	0.0031	0.0031	0.0030	0.0027	5	0.0034	0.0031			0.0033	0	0.0
B-D	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250			0.025	0	0.0
Cd-D	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050	0.000087	0.00017	5.00E-06	0	0.0
Ca-D	mg/L	11.1	10.3	11.2	10.6	11	5	11.2	10.8			11.2	0	0.0
Cr-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0	0.0
Co-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0	0.0
Cu-D	mg/L	0.00055	0.00058	0.00053	0.00057	0.00054	5	0.00058	0.00055	*	*	0.00058	5	100.0
Hard-D	mg/L	33.1	30.8	33.7	31.9	32.9	5	33.7	32.5			33.5	0	0.0
DOC	mg/L	2.9	3.0	3.0	3.0	2.3	5	3.0	2.8			3	0	0.0
Fe-D	mg/L	0.0382	0.0354	0.0368	0.0342	0.0329	5	0.0382	0.0355		0.35	0.0376	0	0.0
Pb-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100			0.0001	0	0.0
Mg-D	mg/L	1.29	1.25	1.38	1.29	1.31	5	1.38	1.30			1.35	0	0.0
Mn-D	mg/L	0.0026	0.0026	0.0028	0.0026	0.0028	5	0.0028	0.0027			0.0028	0	0.0
Mo-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0	0.0
Ni-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050			0.0005	0	0.0
K-D	mg/L	0.190	0.187	0.207	0.193	0.188	5	0.207	0.193			0.201	0	0.0
S-D	mg/L	5.8	5.5	6.7	6.2	5.8	5	6.7	6.0			6.5	0	0.0
Se-D	mg/L	0.00011	0.00012	<0.00010	0.00010	<0.00010	5	0.00012	0.000086			0.000116	0	0.0
Na-D	mg/L	7.66	7.53	9.29	8.77	8.93	5	9.29	8.44			9.15	0	0.0
Sr-D	mg/L	0.0469	0.0471	0.0528	0.0501	0.0456	5	0.0528	0.0485			0.0517	0	0.0
Zn-D	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033	0.0025	0	0.0

Notes: *Calculated guideline. See Exceedance Table.

Factor applied to less-than results when calculating statistics: 0.5

Table 44 Relative Percent Difference 19 Page(s)

Stn.Code 1	Date	Param.Code	Units	Lab MDL 1	Lab MDL 2	Result 1	Result 2	Rel.% Diff.	Ratio
INF	8-Apr-24	H2S	mg/L	0.002	0.002	<0.0020	<0.0020	0.0	1.00
INF	8-Apr-24	S2-T	mg/L	0.0018	0.0018	<0.0018	<0.0018	0.0	1.00
INF	8-Apr-24	SO4-D	mg/L	10	5	610	620	1.6	0.98
INF	27-May-24	H2S	mg/L	0.002	0.002	0.0036	<0.0020	57.1	1.80
INF	27-May-24	S2-T	mg/L	0.0018	0.0018	0.0034	<0.0018	61.5	1.89
INF	27-May-24	SO4-D	mg/L	10	10	660	670	1.5	0.99
LLE	13-May-24	SO4-D	mg/L	5	5	220	220	0.0	1.00
LLE	21-May-24	SO4-D	mg/L	5	5	220	220	0.0	1.00
LLM4	17-Apr-24	Ag-D	mg/L	0.00002	0.00002	<0.000020	<0.000020	0.0	1.00
LLM4	17-Apr-24	Ag-T	mg/L	0.00002	0.00002	<0.000020	<0.000020	0.0	1.00
LLM4	17-Apr-24	Al-D	mg/L	0.003	0.003	0.0275	0.0264	4.1	1.04
LLM4	17-Apr-24	Alk-PP	mg/L	1	1	<1.0	<1.0	0.0	1.00
LLM4	17-Apr-24	Alk-T	mg/L	1	1	27	28	3.6	0.96
LLM4	17-Apr-24	Al-T	mg/L	0.003	0.003	0.0315	0.0318	0.9	0.99
LLM4	17-Apr-24	As-D	mg/L	0.0001	0.0001	0.00031	0.00031	0.0	1.00
LLM4	17-Apr-24	As-T	mg/L	0.0001	0.0001	0.00030	0.00032	6.5	0.94
LLM4	17-Apr-24	Ba-D	mg/L	0.001	0.001	0.0052	0.0054	3.8	0.96
LLM4	17-Apr-24	Ba-T	mg/L	0.001	0.001	0.0048	0.0050	4.1	0.96
LLM4	17-Apr-24	B-D	mg/L	0.05	0.05	0.051	0.053	3.8	0.96
LLM4	17-Apr-24	Be-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
LLM4	17-Apr-24	Be-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
LLM4	17-Apr-24	B-T	mg/L	0.05	0.05	<0.050	0.050	0.0	1.00
LLM4	17-Apr-24	Ca-D	mg/L	0.05	0.05	22.4	25.2	11.8	0.89
LLM4	17-Apr-24	Ca-T	mg/L	0.05	0.05	19.8	22.2	11.4	0.89
LLM4	17-Apr-24	Cd-D	mg/L	0.00001	0.00001	<0.000010	<0.000010	0.0	1.00
LLM4	17-Apr-24	Cd-T	mg/L	0.00001	0.00001	<0.000010	<0.000010	0.0	1.00
LLM4	17-Apr-24	Cl-D	mg/L	1	1	<1.0	<1.0	0.0	1.00
LLM4	17-Apr-24	Co-D	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
LLM4	17-Apr-24	Co-T	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
LLM4	17-Apr-24	Cr-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
LLM4	17-Apr-24	Cr-T	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
LLM4	17-Apr-24	Cu-D	mg/L	0.0002	0.0002	0.00040	0.00042	4.9	0.95
LLM4	17-Apr-24	Cu-T	mg/L	0.0005	0.0005	<0.00050	<0.00050	0.0	1.00
LLM4	17-Apr-24	DOC	mg/L	0.5	0.5	3.7	4.3	15.0	0.86
LLM4	17-Apr-24	Fe-D	mg/L	0.005	0.005	0.0384	0.0403	4.8	0.95
LLM4	17-Apr-24	Fe-T	mg/L	0.01	0.01	0.055	0.058	5.3	0.95
LLM4	17-Apr-24	Hard-D	mg/L	0.5	0.5	68.2	75.4	10.0	0.90
LLM4	17-Apr-24	Hard-T	mg/L	0.5	0.5	60.6	67.8	11.2	0.89
LLM4	17-Apr-24	K-D	mg/L	0.05	0.05	0.257	0.269	4.6	0.96
LLM4	17-Apr-24	K-T	mg/L	0.05	0.05	0.225	0.250	10.5	0.90
LLM4	17-Apr-24	Li-D	mg/L	0.002	0.002	<0.0020	<0.0020	0.0	1.00
LLM4	17-Apr-24	Li-T	mg/L	0.002	0.002	<0.0020	<0.0020	0.0	1.00
LLM4	17-Apr-24	Mg-D	mg/L	0.05	0.05	3.00	3.07	2.3	0.98
LLM4	17-Apr-24	Mg-T	mg/L	0.05	0.05	2.74	3.00	9.1	0.91
LLM4	17-Apr-24	Mn-D	mg/L	0.001	0.001	0.0103	0.0108	4.7	0.95
LLM4	17-Apr-24	Mn-T	mg/L	0.001	0.001	0.0106	0.0123	14.8	0.86
LLM4	17-Apr-24	Mo-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
LLM4	17-Apr-24	Mo-T	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
LLM4	17-Apr-24	Na-D	mg/L	0.05	0.05	6.48	6.87	5.8	0.94
LLM4	17-Apr-24	Na-T	mg/L	0.05	0.05	5.75	6.47	11.8	0.89
LLM4	17-Apr-24	Ni-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
LLM4	17-Apr-24	Ni-T	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
LLM4	17-Apr-24	N-NO23	mg/L	0.02	0.02	<0.020	<0.020	0.0	1.00
LLM4	17-Apr-24	Pb-D	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
LLM4	17-Apr-24	Pb-T	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00

Pink - Relevative Percent Difference (RPD) is greater than 20%.

Blue -Different Lab MDL

Table 44 Relative Percent Difference 19 Page(s)

Stn.Code 1	Date	Param.Code	Units	Lab MDL 1	Lab MDL 2	Result 1	Result 2	Rel.% Diff.	Ratio
LLM4	17-Apr-24	P-D	mg/L	0.003	0.003	0.0032	0.0032	0.0	1.00
LLM4	17-Apr-24	P-T	mg/L	0.003	0.003	0.0047	0.0043	8.9	1.09
LLM4	17-Apr-24	Sb-D	mg/L	0.0005	0.0005	<0.00050	<0.00050	0.0	1.00
LLM4	17-Apr-24	Sb-T	mg/L	0.0005	0.0005	<0.00050	<0.00050	0.0	1.00
LLM4	17-Apr-24	S-D	mg/L	3	3	19.4	20.6	6.0	0.94
LLM4	17-Apr-24	Se-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
LLM4	17-Apr-24	Se-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
LLM4	17-Apr-24	Si-D	mg/L	0.1	0.1	3.27	3.41	4.2	0.96
LLM4	17-Apr-24	Si-T	mg/L	0.1	0.1	3.08	3.02	2.0	1.02
LLM4	17-Apr-24	Sn-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
LLM4	17-Apr-24	Sn-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
LLM4	17-Apr-24	SO4-D	mg/L	1	1	51	58	12.8	0.88
LLM4	17-Apr-24	Sr-D	mg/L	0.001	0.001	0.148	0.157	5.9	0.94
LLM4	17-Apr-24	Sr-T	mg/L	0.001	0.001	0.131	0.149	12.9	0.88
LLM4	17-Apr-24	S-T	mg/L	3	3	16.9	19.6	14.8	0.86
LLM4	17-Apr-24	Ti-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
LLM4	17-Apr-24	Ti-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
LLM4	17-Apr-24	Tl-D	mg/L	0.00001	0.00001	<0.000010	<0.000010	0.0	1.00
LLM4	17-Apr-24	Tl-T	mg/L	0.00001	0.00001	<0.000010	<0.000010	0.0	1.00
LLM4	17-Apr-24	Turb	NTU	0.1	0.1	0.40	0.51	24.2	0.78
LLM4	17-Apr-24	U-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
LLM4	17-Apr-24	U-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
LLM4	17-Apr-24	V-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
LLM4	17-Apr-24	V-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
LLM4	17-Apr-24	Zn-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
LLM4	17-Apr-24	Zn-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
LLM4	17-Apr-24	Zr-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
LLM4	17-Apr-24	Zr-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
LLO	22-Apr-24	Ag-D	mg/L	0.00002	0.00002	<0.000020	<0.000020	0.0	1.00
LLO	22-Apr-24	Ag-T	mg/L	0.00002	0.00002	<0.000020	<0.000020	0.0	1.00
LLO	22-Apr-24	Al-D	mg/L	0.003	0.003	0.0249	0.0246	1.2	1.01
LLO	22-Apr-24	Alk-PP	mg/L	1	1	<1.0	<1.0	0.0	1.00
LLO	22-Apr-24	Alk-T	mg/L	1	1	24	24	0.0	1.00
LLO	22-Apr-24	Al-T	mg/L	0.003	0.003	0.0234	0.025	6.6	0.94
LLO	22-Apr-24	As-D	mg/L	0.0001	0.0001	0.00031	0.00032	3.2	0.97
LLO	22-Apr-24	As-T	mg/L	0.0001	0.0001	0.00029	0.00031	6.7	0.94
LLO	22-Apr-24	Ba-D	mg/L	0.001	0.001	0.0045	0.0045	0.0	1.00
LLO	22-Apr-24	Ba-T	mg/L	0.001	0.001	0.0042	0.0039	7.4	1.08
LLO	22-Apr-24	B-D	mg/L	0.05	0.05	<0.050	<0.050	0.0	1.00
LLO	22-Apr-24	Be-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
LLO	22-Apr-24	Be-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
LLO	22-Apr-24	B-T	mg/L	0.05	0.05	<0.050	<0.050	0.0	1.00
LLO	22-Apr-24	Ca-D	mg/L	0.05	0.05	19.1	17.9	6.5	1.07
LLO	22-Apr-24	Ca-T	mg/L	0.05	0.05	16.2	16.2	0.0	1.00
LLO	22-Apr-24	Cd-D	mg/L	0.00001	0.00001	<0.000010	<0.000010	0.0	1.00
LLO	22-Apr-24	Cd-T	mg/L	0.00001	0.00001	<0.000010	<0.000010	0.0	1.00
LLO	22-Apr-24	Cl-D	mg/L	1	1	<1.0	<1.0	0.0	1.00
LLO	22-Apr-24	Co-D	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
LLO	22-Apr-24	Co-T	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
LLO	22-Apr-24	Cr-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
LLO	22-Apr-24	Cr-T	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
LLO	22-Apr-24	Cu-D	mg/L	0.0002	0.0002	0.00042	0.00044	4.7	0.95
LLO	22-Apr-24	Cu-T	mg/L	0.0005	0.0005	<0.00050	<0.00050	0.0	1.00
LLO	22-Apr-24	DOC	mg/L	0.5	0.5	3.6	3.3	8.7	1.09
LLO	22-Apr-24	Fe-D	mg/L	0.005	0.005	0.0377	0.0355	6.0	1.06

Pink - Relevative Percent Difference (RPD) is greater than 20%.

Blue -Different Lab MDL

Table 44 Relative Percent Difference 19 Page(s)

Stn.Code 1	Date	Param.Code	Units	Lab MDL 1	Lab MDL 2	Result 1	Result 2	Rel.% Diff.	Ratio
LLO	22-Apr-24	Fe-T	mg/L	0.01	0.01	0.047	0.05	6.2	0.94
LLO	22-Apr-24	Hard-D	mg/L	0.5	0.5	58.2	55.1	5.5	1.06
LLO	22-Apr-24	Hard-T	mg/L	0.5	0.5	48.6	48.3	0.6	1.01
LLO	22-Apr-24	K-D	mg/L	0.05	0.05	0.21	0.206	1.9	1.02
LLO	22-Apr-24	K-T	mg/L	0.05	0.05	0.186	0.169	9.6	1.10
LLO	22-Apr-24	Li-D	mg/L	0.002	0.002	<0.0020	<0.0020	0.0	1.00
LLO	22-Apr-24	Li-T	mg/L	0.002	0.002	<0.0020	<0.0020	0.0	1.00
LLO	22-Apr-24	Mg-D	mg/L	0.05	0.05	2.56	2.5	2.4	1.02
LLO	22-Apr-24	Mg-T	mg/L	0.05	0.05	1.95	1.94	0.5	1.01
LLO	22-Apr-24	Mn-D	mg/L	0.001	0.001	0.0038	0.0037	2.7	1.03
LLO	22-Apr-24	Mn-T	mg/L	0.001	0.001	0.0058	0.0068	15.9	0.85
LLO	22-Apr-24	Mo-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
LLO	22-Apr-24	Mo-T	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
LLO	22-Apr-24	Na-D	mg/L	0.05	0.05	5.36	5.22	2.6	1.03
LLO	22-Apr-24	Na-T	mg/L	0.05	0.05	4.36	4.36	0.0	1.00
LLO	22-Apr-24	Ni-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
LLO	22-Apr-24	Ni-T	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
LLO	22-Apr-24	Pb-D	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
LLO	22-Apr-24	Pb-T	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
LLO	22-Apr-24	Sb-D	mg/L	0.0005	0.0005	<0.00050	<0.00050	0.0	1.00
LLO	22-Apr-24	Sb-T	mg/L	0.0005	0.0005	<0.00050	<0.00050	0.0	1.00
LLO	22-Apr-24	S-D	mg/L	3	3	15.2	14.8	2.7	1.03
LLO	22-Apr-24	Se-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
LLO	22-Apr-24	Se-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
LLO	22-Apr-24	Si-D	mg/L	0.1	0.1	3.4	3.27	3.9	1.04
LLO	22-Apr-24	Si-T	mg/L	0.1	0.1	2.57	2.58	0.4	1.00
LLO	22-Apr-24	Sn-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
LLO	22-Apr-24	Sn-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
LLO	22-Apr-24	SO4-D	mg/L	1	1	42	42	0.0	1.00
LLO	22-Apr-24	Sr-D	mg/L	0.001	0.001	0.115	0.113	1.8	1.02
LLO	22-Apr-24	Sr-T	mg/L	0.001	0.001	0.0985	0.098	0.5	1.01
LLO	22-Apr-24	S-T	mg/L	3	3	12	11.4	5.1	1.05
LLO	22-Apr-24	Ti-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
LLO	22-Apr-24	Ti-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
LLO	22-Apr-24	Tl-D	mg/L	0.00001	0.00001	<0.000010	<0.000010	0.0	1.00
LLO	22-Apr-24	Tl-T	mg/L	0.00001	0.00001	<0.000010	<0.000010	0.0	1.00
LLO	22-Apr-24	TSS	mg/L	1	1	<1.0	1.6	46.2	0.62
LLO	22-Apr-24	U-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
LLO	22-Apr-24	U-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
LLO	22-Apr-24	V-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
LLO	22-Apr-24	V-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
LLO	22-Apr-24	Zn-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
LLO	22-Apr-24	Zn-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
LLO	22-Apr-24	Zr-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
LLO	22-Apr-24	Zr-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
LLO	22-Apr-24	Ag-D	mg/L	0.00002	0.00002	<0.000020	<0.000020	0.0	1.00
LLO	22-Apr-24	Ag-T	mg/L	0.00002	0.00002	<0.000020	<0.000020	0.0	1.00
LLO	22-Apr-24	Al-D	mg/L	0.003	0.003	0.0249	0.0249	0.0	1.00
LLO	22-Apr-24	Alk-PP	mg/L	1	1	<1.0	<1.0	0.0	1.00
LLO	22-Apr-24	Alk-T	mg/L	1	1	24	24	0.0	1.00
LLO	22-Apr-24	Al-T	mg/L	0.003	0.003	0.0234	0.0234	0.0	1.00
LLO	22-Apr-24	As-D	mg/L	0.0001	0.0001	0.00031	0.00031	0.0	1.00
LLO	22-Apr-24	As-T	mg/L	0.0001	0.0001	0.00029	0.00029	0.0	1.00
LLO	22-Apr-24	Ba-D	mg/L	0.001	0.001	0.0045	0.0045	0.0	1.00
LLO	22-Apr-24	Ba-T	mg/L	0.001	0.001	0.0042	0.0042	0.0	1.00

Pink - Relevative Percent Difference (RPD) is greater than 20%.

Blue -Different Lab MDL

Table 44 Relative Percent Difference 19 Page(s)

Stn.Code 1	Date	Param.Code	Units	Lab MDL 1	Lab MDL 2	Result 1	Result 2	Rel.% Diff.	Ratio
LLO	22-Apr-24	B-D	mg/L	0.05	0.05	<0.050	<0.050	0.0	1.00
LLO	22-Apr-24	Be-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
LLO	22-Apr-24	Be-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
LLO	22-Apr-24	B-T	mg/L	0.05	0.05	<0.050	<0.050	0.0	1.00
LLO	22-Apr-24	Ca-D	mg/L	0.05	0.05	19.1	19.1	0.0	1.00
LLO	22-Apr-24	Ca-T	mg/L	0.05	0.05	16.2	16.2	0.0	1.00
LLO	22-Apr-24	Cd-D	mg/L	0.00001	0.00001	<0.000010	<0.000010	0.0	1.00
LLO	22-Apr-24	Cd-T	mg/L	0.00001	0.00001	<0.000010	<0.000010	0.0	1.00
LLO	22-Apr-24	Cl-D	mg/L	1	1	<1.0	<1.0	0.0	1.00
LLO	22-Apr-24	Co-D	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
LLO	22-Apr-24	Co-T	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
LLO	22-Apr-24	Cr-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
LLO	22-Apr-24	Cr-T	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
LLO	22-Apr-24	Cu-D	mg/L	0.0002	0.0002	0.00042	0.00042	0.0	1.00
LLO	22-Apr-24	Cu-T	mg/L	0.0005	0.0005	<0.00050	<0.00050	0.0	1.00
LLO	22-Apr-24	DOC	mg/L	0.5	0.5	3.6	3.6	0.0	1.00
LLO	22-Apr-24	Fe-D	mg/L	0.005	0.005	0.0377	0.0377	0.0	1.00
LLO	22-Apr-24	Fe-T	mg/L	0.01	0.01	0.047	0.047	0.0	1.00
LLO	22-Apr-24	Hard-D	mg/L	0.5	0.5	58.2	58.2	0.0	1.00
LLO	22-Apr-24	Hard-T	mg/L	0.5	0.5	48.6	48.6	0.0	1.00
LLO	22-Apr-24	K-D	mg/L	0.05	0.05	0.21	0.21	0.0	1.00
LLO	22-Apr-24	K-T	mg/L	0.05	0.05	0.186	0.186	0.0	1.00
LLO	22-Apr-24	Li-D	mg/L	0.002	0.002	<0.0020	<0.0020	0.0	1.00
LLO	22-Apr-24	Li-T	mg/L	0.002	0.002	<0.0020	<0.0020	0.0	1.00
LLO	22-Apr-24	Mg-D	mg/L	0.05	0.05	2.56	2.56	0.0	1.00
LLO	22-Apr-24	Mg-T	mg/L	0.05	0.05	1.95	1.95	0.0	1.00
LLO	22-Apr-24	Mn-D	mg/L	0.001	0.001	0.0038	0.0038	0.0	1.00
LLO	22-Apr-24	Mn-T	mg/L	0.001	0.001	0.0058	0.0058	0.0	1.00
LLO	22-Apr-24	Mo-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
LLO	22-Apr-24	Mo-T	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
LLO	22-Apr-24	Na-D	mg/L	0.05	0.05	5.36	5.36	0.0	1.00
LLO	22-Apr-24	Na-T	mg/L	0.05	0.05	4.36	4.36	0.0	1.00
LLO	22-Apr-24	Ni-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
LLO	22-Apr-24	Ni-T	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
LLO	22-Apr-24	Pb-D	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
LLO	22-Apr-24	Pb-T	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
LLO	22-Apr-24	Sb-D	mg/L	0.0005	0.0005	<0.00050	<0.00050	0.0	1.00
LLO	22-Apr-24	Sb-T	mg/L	0.0005	0.0005	<0.00050	<0.00050	0.0	1.00
LLO	22-Apr-24	S-D	mg/L	3	3	15.2	15.2	0.0	1.00
LLO	22-Apr-24	Se-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
LLO	22-Apr-24	Se-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
LLO	22-Apr-24	Si-D	mg/L	0.1	0.1	3.4	3.4	0.0	1.00
LLO	22-Apr-24	Si-T	mg/L	0.1	0.1	2.57	2.57	0.0	1.00
LLO	22-Apr-24	Sn-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
LLO	22-Apr-24	Sn-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
LLO	22-Apr-24	SO4-D	mg/L	1	1	42	42	0.0	1.00
LLO	22-Apr-24	Sr-D	mg/L	0.001	0.001	0.115	0.115	0.0	1.00
LLO	22-Apr-24	Sr-T	mg/L	0.001	0.001	0.0985	0.0985	0.0	1.00
LLO	22-Apr-24	S-T	mg/L	3	3	12	12	0.0	1.00
LLO	22-Apr-24	Ti-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
LLO	22-Apr-24	Ti-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
LLO	22-Apr-24	Tl-D	mg/L	0.00001	0.00001	<0.000010	<0.000010	0.0	1.00
LLO	22-Apr-24	Tl-T	mg/L	0.00001	0.00001	<0.000010	<0.000010	0.0	1.00
LLO	22-Apr-24	TSS	mg/L	1	1	<1.0	<1.0	0.0	1.00
LLO	22-Apr-24	U-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00

Pink - Relevative Percent Difference (RPD) is greater than 20%.

Blue -Different Lab MDL

Table 44 Relative Percent Difference 19 Page(s)

Stn.Code 1	Date	Param.Code	Units	Lab MDL 1	Lab MDL 2	Result 1	Result 2	Rel.% Diff.	Ratio
LLO	22-Apr-24	U-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
LLO	22-Apr-24	V-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
LLO	22-Apr-24	V-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
LLO	22-Apr-24	Zn-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
LLO	22-Apr-24	Zn-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
LLO	22-Apr-24	Zr-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
LLO	22-Apr-24	Zr-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
LQL1	25-Apr-24	Ag-D	mg/L	0.00002	0.00002	<0.000020	<0.000020	0.0	1.00
LQL1	25-Apr-24	Ag-T	mg/L	0.00002	0.00002	<0.000020	<0.000020	0.0	1.00
LQL1	25-Apr-24	Al-D	mg/L	0.003	0.003	0.019	0.0194	2.1	0.98
LQL1	25-Apr-24	Alk-PP	mg/L	1	1	<1.0	<1.0	0.0	1.00
LQL1	25-Apr-24	Alk-T	mg/L	1	1	39	32	19.7	1.22
LQL1	25-Apr-24	Al-T	mg/L	0.003	0.003	0.0227	0.0268	16.6	0.85
LQL1	25-Apr-24	As-D	mg/L	0.0001	0.0001	0.00055	0.00053	3.7	1.04
LQL1	25-Apr-24	As-T	mg/L	0.0001	0.0001	0.00055	0.00047	15.7	1.17
LQL1	25-Apr-24	Ba-D	mg/L	0.001	0.001	0.003	0.0031	3.3	0.97
LQL1	25-Apr-24	Ba-T	mg/L	0.001	0.001	0.003	0.0025	18.2	1.20
LQL1	25-Apr-24	B-D	mg/L	0.05	0.05	<0.050	<0.050	0.0	1.00
LQL1	25-Apr-24	Be-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
LQL1	25-Apr-24	Be-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
LQL1	25-Apr-24	B-T	mg/L	0.05	0.05	<0.050	<0.050	0.0	1.00
LQL1	25-Apr-24	Ca-D	mg/L	0.05	0.05	10.4	9.94	4.5	1.05
LQL1	25-Apr-24	Ca-T	mg/L	0.05	0.05	9.27	8.12	13.2	1.14
LQL1	25-Apr-24	Cd-D	mg/L	0.00001	0.00001	0.000022	<0.000010	75.0	2.20
LQL1	25-Apr-24	Cd-T	mg/L	0.00001	0.00001	<0.000010	<0.000010	0.0	1.00
LQL1	25-Apr-24	Cl-D	mg/L	1	1	<1.0	<1.0	0.0	1.00
LQL1	25-Apr-24	Co-D	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
LQL1	25-Apr-24	Co-T	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
LQL1	25-Apr-24	Cr-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
LQL1	25-Apr-24	Cr-T	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
LQL1	25-Apr-24	Cu-D	mg/L	0.0002	0.0002	0.0006	0.00057	5.1	1.05
LQL1	25-Apr-24	Cu-T	mg/L	0.0005	0.0005	0.00055	<0.00050	9.5	1.10
LQL1	25-Apr-24	DOC	mg/L	0.5	0.5	2.9	3.1	6.7	0.94
LQL1	25-Apr-24	Fe-D	mg/L	0.005	0.005	0.0396	0.0462	15.4	0.86
LQL1	25-Apr-24	Fe-T	mg/L	0.01	0.01	0.063	0.057	10.0	1.11
LQL1	25-Apr-24	Hard-D	mg/L	0.5	0.5	31	29.9	3.6	1.04
LQL1	25-Apr-24	Hard-T	mg/L	0.5	0.5	28.1	24.5	13.7	1.15
LQL1	25-Apr-24	K-D	mg/L	0.05	0.05	0.191	0.183	4.3	1.04
LQL1	25-Apr-24	K-T	mg/L	0.05	0.05	0.165	0.143	14.3	1.15
LQL1	25-Apr-24	Li-D	mg/L	0.002	0.002	<0.0020	<0.0020	0.0	1.00
LQL1	25-Apr-24	Li-T	mg/L	0.002	0.002	<0.0020	<0.0020	0.0	1.00
LQL1	25-Apr-24	Mg-D	mg/L	0.05	0.05	1.25	1.23	1.6	1.02
LQL1	25-Apr-24	Mg-T	mg/L	0.05	0.05	1.19	1.03	14.4	1.16
LQL1	25-Apr-24	Mn-D	mg/L	0.001	0.001	0.0019	0.0014	30.3	1.36
LQL1	25-Apr-24	Mn-T	mg/L	0.001	0.001	0.0044	0.0038	14.6	1.16
LQL1	25-Apr-24	Mo-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
LQL1	25-Apr-24	Mo-T	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
LQL1	25-Apr-24	Na-D	mg/L	0.05	0.05	7.85	7.73	1.5	1.02
LQL1	25-Apr-24	Na-T	mg/L	0.05	0.05	7.2	6.28	13.6	1.15
LQL1	25-Apr-24	Ni-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
LQL1	25-Apr-24	Ni-T	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
LQL1	25-Apr-24	N-NO23	mg/L	0.02	0.02	<0.020	<0.020	0.0	1.00
LQL1	25-Apr-24	Pb-D	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
LQL1	25-Apr-24	Pb-T	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
LQL1	25-Apr-24	P-D	mg/L	0.003	0.003	0.0039	0.0042	7.4	0.93

Pink - Relevative Percent Difference (RPD) is greater than 20%.

Blue -Different Lab MDL

Table 44 Relative Percent Difference 19 Page(s)

Stn.Code 1	Date	Param.Code	Units	Lab MDL 1	Lab MDL 2	Result 1	Result 2	Rel.% Diff.	Ratio
LQL1	25-Apr-24	P-T	mg/L	0.003	0.003	0.0052	0.0044	16.7	1.18
LQL1	25-Apr-24	Sb-D	mg/L	0.0005	0.0005	<0.00050	<0.00050	0.0	1.00
LQL1	25-Apr-24	Sb-T	mg/L	0.0005	0.0005	<0.00050	<0.00050	0.0	1.00
LQL1	25-Apr-24	S-D	mg/L	3	3	5.6	5.3	5.5	1.06
LQL1	25-Apr-24	Se-D	mg/L	0.0001	0.0001	<0.00010	0.0001	0.0	1.00
LQL1	25-Apr-24	Se-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
LQL1	25-Apr-24	Si-D	mg/L	0.1	0.1	2.54	2.4	5.7	1.06
LQL1	25-Apr-24	Si-T	mg/L	0.1	0.1	2.27	1.99	13.1	1.14
LQL1	25-Apr-24	Sn-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
LQL1	25-Apr-24	Sn-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
LQL1	25-Apr-24	SO4-D	mg/L	1	1	15	17	12.5	0.88
LQL1	25-Apr-24	Sr-D	mg/L	0.001	0.001	0.0479	0.0478	0.2	1.00
LQL1	25-Apr-24	Sr-T	mg/L	0.001	0.001	0.0427	0.037	14.3	1.15
LQL1	25-Apr-24	S-T	mg/L	3	3	5	4.6	8.3	1.09
LQL1	25-Apr-24	Ti-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
LQL1	25-Apr-24	Ti-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
LQL1	25-Apr-24	Tl-D	mg/L	0.00001	0.00001	<0.000010	<0.000010	0.0	1.00
LQL1	25-Apr-24	Tl-T	mg/L	0.00001	0.00001	<0.000010	<0.000010	0.0	1.00
LQL1	25-Apr-24	Turb	NTU	0.1	0.1	0.4	0.4	0.0	1.00
LQL1	25-Apr-24	U-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
LQL1	25-Apr-24	U-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
LQL1	25-Apr-24	V-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
LQL1	25-Apr-24	V-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
LQL1	25-Apr-24	Zn-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
LQL1	25-Apr-24	Zn-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
LQL1	25-Apr-24	Zr-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
LQL1	25-Apr-24	Zr-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
LQL1	25-Apr-24	Ag-D	mg/L	0.00002	0.00002	<0.000020	<0.000020	0.0	1.00
LQL1	25-Apr-24	Ag-T	mg/L	0.00002	0.00002	<0.000020	<0.000020	0.0	1.00
LQL1	25-Apr-24	Al-D	mg/L	0.003	0.003	0.019	0.019	0.0	1.00
LQL1	25-Apr-24	Alk-PP	mg/L	1	1	<1.0	<1.0	0.0	1.00
LQL1	25-Apr-24	Alk-T	mg/L	1	1	39	39	0.0	1.00
LQL1	25-Apr-24	Al-T	mg/L	0.003	0.003	0.0227	0.0227	0.0	1.00
LQL1	25-Apr-24	As-D	mg/L	0.0001	0.0001	0.00055	0.00055	0.0	1.00
LQL1	25-Apr-24	As-T	mg/L	0.0001	0.0001	0.00055	0.00055	0.0	1.00
LQL1	25-Apr-24	Ba-D	mg/L	0.001	0.001	0.003	0.003	0.0	1.00
LQL1	25-Apr-24	Ba-T	mg/L	0.001	0.001	0.003	0.003	0.0	1.00
LQL1	25-Apr-24	B-D	mg/L	0.05	0.05	<0.050	<0.050	0.0	1.00
LQL1	25-Apr-24	Be-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
LQL1	25-Apr-24	Be-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
LQL1	25-Apr-24	B-T	mg/L	0.05	0.05	<0.050	<0.050	0.0	1.00
LQL1	25-Apr-24	Ca-D	mg/L	0.05	0.05	10.4	10.4	0.0	1.00
LQL1	25-Apr-24	Ca-T	mg/L	0.05	0.05	9.27	9.27	0.0	1.00
LQL1	25-Apr-24	Cd-D	mg/L	0.00001	0.00001	0.000022	0.000022	0.0	1.00
LQL1	25-Apr-24	Cd-T	mg/L	0.00001	0.00001	<0.000010	<0.000010	0.0	1.00
LQL1	25-Apr-24	Cl-D	mg/L	1	1	<1.0	<1.0	0.0	1.00
LQL1	25-Apr-24	Co-D	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
LQL1	25-Apr-24	Co-T	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
LQL1	25-Apr-24	Cr-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
LQL1	25-Apr-24	Cr-T	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
LQL1	25-Apr-24	Cu-D	mg/L	0.0002	0.0002	0.0006	0.0006	0.0	1.00
LQL1	25-Apr-24	Cu-T	mg/L	0.0005	0.0005	0.00055	0.00055	0.0	1.00
LQL1	25-Apr-24	DOC	mg/L	0.5	0.5	2.9	2.9	0.0	1.00
LQL1	25-Apr-24	Fe-D	mg/L	0.005	0.005	0.0396	0.0396	0.0	1.00
LQL1	25-Apr-24	Fe-T	mg/L	0.01	0.01	0.063	0.063	0.0	1.00

Pink - Relevative Percent Difference (RPD) is greater than 20%.

Blue -Different Lab MDL

Table 44 Relative Percent Difference 19 Page(s)

Stn.Code 1	Date	Param.Code	Units	Lab MDL 1	Lab MDL 2	Result 1	Result 2	Rel.% Diff.	Ratio
LQL1	25-Apr-24	Hard-D	mg/L	0.5	0.5	31	31	0.0	1.00
LQL1	25-Apr-24	Hard-T	mg/L	0.5	0.5	28.1	28.1	0.0	1.00
LQL1	25-Apr-24	K-D	mg/L	0.05	0.05	0.191	0.191	0.0	1.00
LQL1	25-Apr-24	K-T	mg/L	0.05	0.05	0.165	0.165	0.0	1.00
LQL1	25-Apr-24	Li-D	mg/L	0.002	0.002	<0.0020	<0.0020	0.0	1.00
LQL1	25-Apr-24	Li-T	mg/L	0.002	0.002	<0.0020	<0.0020	0.0	1.00
LQL1	25-Apr-24	Mg-D	mg/L	0.05	0.05	1.25	1.25	0.0	1.00
LQL1	25-Apr-24	Mg-T	mg/L	0.05	0.05	1.19	1.19	0.0	1.00
LQL1	25-Apr-24	Mn-D	mg/L	0.001	0.001	0.0019	0.0019	0.0	1.00
LQL1	25-Apr-24	Mn-T	mg/L	0.001	0.001	0.0044	0.0044	0.0	1.00
LQL1	25-Apr-24	Mo-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
LQL1	25-Apr-24	Mo-T	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
LQL1	25-Apr-24	Na-D	mg/L	0.05	0.05	7.85	7.85	0.0	1.00
LQL1	25-Apr-24	Na-T	mg/L	0.05	0.05	7.2	7.2	0.0	1.00
LQL1	25-Apr-24	Ni-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
LQL1	25-Apr-24	Ni-T	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
LQL1	25-Apr-24	N-NO23	mg/L	0.02	0.02	<0.020	<0.020	0.0	1.00
LQL1	25-Apr-24	Pb-D	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
LQL1	25-Apr-24	Pb-T	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
LQL1	25-Apr-24	P-D	mg/L	0.003	0.003	0.0039	0.0039	0.0	1.00
LQL1	25-Apr-24	P-T	mg/L	0.003	0.003	0.0052	0.0052	0.0	1.00
LQL1	25-Apr-24	Sb-D	mg/L	0.0005	0.0005	<0.00050	<0.00050	0.0	1.00
LQL1	25-Apr-24	Sb-T	mg/L	0.0005	0.0005	<0.00050	<0.00050	0.0	1.00
LQL1	25-Apr-24	S-D	mg/L	3	3	5.6	5.6	0.0	1.00
LQL1	25-Apr-24	Se-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
LQL1	25-Apr-24	Se-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
LQL1	25-Apr-24	Si-D	mg/L	0.1	0.1	2.54	2.54	0.0	1.00
LQL1	25-Apr-24	Si-T	mg/L	0.1	0.1	2.27	2.27	0.0	1.00
LQL1	25-Apr-24	Sn-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
LQL1	25-Apr-24	Sn-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
LQL1	25-Apr-24	SO4-D	mg/L	1	1	15	15	0.0	1.00
LQL1	25-Apr-24	Sr-D	mg/L	0.001	0.001	0.0479	0.0479	0.0	1.00
LQL1	25-Apr-24	Sr-T	mg/L	0.001	0.001	0.0427	0.0427	0.0	1.00
LQL1	25-Apr-24	S-T	mg/L	3	3	5	5	0.0	1.00
LQL1	25-Apr-24	Ti-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
LQL1	25-Apr-24	Ti-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
LQL1	25-Apr-24	Tl-D	mg/L	0.00001	0.00001	<0.000010	<0.000010	0.0	1.00
LQL1	25-Apr-24	Tl-T	mg/L	0.00001	0.00001	<0.000010	<0.000010	0.0	1.00
LQL1	25-Apr-24	Turb	NTU	0.1	0.1	0.4	0.4	0.0	1.00
LQL1	25-Apr-24	U-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
LQL1	25-Apr-24	U-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
LQL1	25-Apr-24	V-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
LQL1	25-Apr-24	V-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
LQL1	25-Apr-24	Zn-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
LQL1	25-Apr-24	Zn-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
LQL1	25-Apr-24	Zr-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
LQL1	25-Apr-24	Zr-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
MQL1	24-Apr-24	Ag-D	mg/L	0.00002	0.00002	<0.000020	<0.000020	0.0	1.00
MQL1	24-Apr-24	Ag-T	mg/L	0.00002	0.00002	<0.000020	<0.000020	0.0	1.00
MQL1	24-Apr-24	Al-D	mg/L	0.003	0.003	0.016	0.0153	4.5	1.05
MQL1	24-Apr-24	Alk-PP	mg/L	1	1	<1.0	<1.0	0.0	1.00
MQL1	24-Apr-24	Alk-T	mg/L	1	1	34	35	2.9	0.97
MQL1	24-Apr-24	Al-T	mg/L	0.003	0.003	0.0163	0.0151	7.6	1.08
MQL1	24-Apr-24	As-D	mg/L	0.0001	0.0001	0.00012	0.0001	18.2	1.20
MQL1	24-Apr-24	As-T	mg/L	0.0001	0.0001	0.0001	0.00011	9.5	0.91

Pink - Relevative Percent Difference (RPD) is greater than 20%.

Blue -Different Lab MDL

Table 44 Relative Percent Difference 19 Page(s)

Stn.Code 1	Date	Param.Code	Units	Lab MDL 1	Lab MDL 2	Result 1	Result 2	Rel.% Diff.	Ratio
MQL1	24-Apr-24	Ba-D	mg/L	0.001	0.001	0.0015	0.0015	0.0	1.00
MQL1	24-Apr-24	Ba-T	mg/L	0.001	0.001	0.0014	0.0014	0.0	1.00
MQL1	24-Apr-24	B-D	mg/L	0.05	0.05	<0.050	<0.050	0.0	1.00
MQL1	24-Apr-24	Be-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
MQL1	24-Apr-24	Be-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
MQL1	24-Apr-24	B-T	mg/L	0.05	0.05	<0.050	<0.050	0.0	1.00
MQL1	24-Apr-24	Ca-D	mg/L	0.05	0.05	10.3	10.3	0.0	1.00
MQL1	24-Apr-24	Ca-T	mg/L	0.05	0.05	9.26	9.07	2.1	1.02
MQL1	24-Apr-24	Cd-D	mg/L	0.00001	0.00001	0.000016	<0.000010	46.2	1.60
MQL1	24-Apr-24	Cd-T	mg/L	0.00001	0.00001	<0.000010	<0.000010	0.0	1.00
MQL1	24-Apr-24	Cl-D	mg/L	1	1	<1.0	<1.0	0.0	1.00
MQL1	24-Apr-24	Co-D	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
MQL1	24-Apr-24	Co-T	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
MQL1	24-Apr-24	Cr-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
MQL1	24-Apr-24	Cr-T	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
MQL1	24-Apr-24	Cu-D	mg/L	0.0002	0.0002	0.00059	0.00058	1.7	1.02
MQL1	24-Apr-24	Cu-T	mg/L	0.0005	0.0005	0.00053	0.00056	5.5	0.95
MQL1	24-Apr-24	DOC	mg/L	0.5	0.5	2.6	2.3	12.2	1.13
MQL1	24-Apr-24	Fe-D	mg/L	0.005	0.005	0.0158	0.0165	4.3	0.96
MQL1	24-Apr-24	Fe-T	mg/L	0.01	0.01	0.022	0.021	4.7	1.05
MQL1	24-Apr-24	Hard-D	mg/L	0.5	0.5	31.1	30.9	0.6	1.01
MQL1	24-Apr-24	Hard-T	mg/L	0.5	0.5	27.8	27.1	2.6	1.03
MQL1	24-Apr-24	K-D	mg/L	0.05	0.05	0.189	0.178	6.0	1.06
MQL1	24-Apr-24	K-T	mg/L	0.05	0.05	0.16	0.167	4.3	0.96
MQL1	24-Apr-24	Li-D	mg/L	0.002	0.002	<0.0020	<0.0020	0.0	1.00
MQL1	24-Apr-24	Li-T	mg/L	0.002	0.002	<0.0020	<0.0020	0.0	1.00
MQL1	24-Apr-24	Mg-D	mg/L	0.05	0.05	1.28	1.24	3.2	1.03
MQL1	24-Apr-24	Mg-T	mg/L	0.05	0.05	1.13	1.09	3.6	1.04
MQL1	24-Apr-24	Mn-D	mg/L	0.001	0.001	0.0024	0.0018	28.6	1.33
MQL1	24-Apr-24	Mn-T	mg/L	0.001	0.001	0.0036	0.0034	5.7	1.06
MQL1	24-Apr-24	Mo-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
MQL1	24-Apr-24	Mo-T	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
MQL1	24-Apr-24	Na-D	mg/L	0.05	0.05	10.4	10.2	1.9	1.02
MQL1	24-Apr-24	Na-T	mg/L	0.05	0.05	9.33	8.84	5.4	1.06
MQL1	24-Apr-24	Ni-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
MQL1	24-Apr-24	Ni-T	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
MQL1	24-Apr-24	N-NO23	mg/L	0.02	0.02	<0.020	<0.020	0.0	1.00
MQL1	24-Apr-24	Pb-D	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
MQL1	24-Apr-24	Pb-T	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
MQL1	24-Apr-24	P-D	mg/L	0.003	0.003	<0.0030	<0.0030	0.0	1.00
MQL1	24-Apr-24	P-T	mg/L	0.003	0.003	<0.0030	0.01	107.7	0.30
MQL1	24-Apr-24	Sb-D	mg/L	0.0005	0.0005	<0.00050	<0.00050	0.0	1.00
MQL1	24-Apr-24	Sb-T	mg/L	0.0005	0.0005	<0.00050	<0.00050	0.0	1.00
MQL1	24-Apr-24	S-D	mg/L	3	3	6.8	6.8	0.0	1.00
MQL1	24-Apr-24	Se-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
MQL1	24-Apr-24	Se-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
MQL1	24-Apr-24	Si-D	mg/L	0.1	0.1	1.99	1.95	2.0	1.02
MQL1	24-Apr-24	Si-T	mg/L	0.1	0.1	1.57	1.51	3.9	1.04
MQL1	24-Apr-24	Sn-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
MQL1	24-Apr-24	Sn-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
MQL1	24-Apr-24	SO4-D	mg/L	1	1	19	19	0.0	1.00
MQL1	24-Apr-24	Sr-D	mg/L	0.001	0.001	0.0494	0.0489	1.0	1.01
MQL1	24-Apr-24	Sr-T	mg/L	0.001	0.001	0.0431	0.0433	0.5	1.00
MQL1	24-Apr-24	S-T	mg/L	3	3	5.5	5.5	0.0	1.00
MQL1	24-Apr-24	Ti-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00

Pink - Relevative Percent Difference (RPD) is greater than 20%.

Blue -Different Lab MDL

Table 44 Relative Percent Difference 19 Page(s)

Stn.Code 1	Date	Param.Code	Units	Lab MDL 1	Lab MDL 2	Result 1	Result 2	Rel.% Diff.	Ratio
MQL1	24-Apr-24	Ti-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
MQL1	24-Apr-24	Tl-D	mg/L	0.00001	0.00001	<0.000010	<0.000010	0.0	1.00
MQL1	24-Apr-24	Tl-T	mg/L	0.00001	0.00001	<0.000010	<0.000010	0.0	1.00
MQL1	24-Apr-24	Turb	NTU	0.1	0.1	0.2	0.5	85.7	0.40
MQL1	24-Apr-24	U-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
MQL1	24-Apr-24	U-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
MQL1	24-Apr-24	V-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
MQL1	24-Apr-24	V-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
MQL1	24-Apr-24	Zn-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
MQL1	24-Apr-24	Zn-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
MQL1	24-Apr-24	Zr-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
MQL1	24-Apr-24	Zr-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
MQL1	24-Apr-24	Ag-D	mg/L	0.00002	0.00002	<0.000020	<0.000020	0.0	1.00
MQL1	24-Apr-24	Ag-T	mg/L	0.00002	0.00002	<0.000020	<0.000020	0.0	1.00
MQL1	24-Apr-24	Al-D	mg/L	0.003	0.003	0.016	0.016	0.0	1.00
MQL1	24-Apr-24	Alk-PP	mg/L	1	1	<1.0	<1.0	0.0	1.00
MQL1	24-Apr-24	Alk-T	mg/L	1	1	34	34	0.0	1.00
MQL1	24-Apr-24	Al-T	mg/L	0.003	0.003	0.0163	0.0163	0.0	1.00
MQL1	24-Apr-24	As-D	mg/L	0.0001	0.0001	0.00012	0.00012	0.0	1.00
MQL1	24-Apr-24	As-T	mg/L	0.0001	0.0001	0.0001	0.0001	0.0	1.00
MQL1	24-Apr-24	Ba-D	mg/L	0.001	0.001	0.0015	0.0015	0.0	1.00
MQL1	24-Apr-24	Ba-T	mg/L	0.001	0.001	0.0014	0.0014	0.0	1.00
MQL1	24-Apr-24	B-D	mg/L	0.05	0.05	<0.050	<0.050	0.0	1.00
MQL1	24-Apr-24	Be-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
MQL1	24-Apr-24	Be-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
MQL1	24-Apr-24	B-T	mg/L	0.05	0.05	<0.050	<0.050	0.0	1.00
MQL1	24-Apr-24	Ca-D	mg/L	0.05	0.05	10.3	10.3	0.0	1.00
MQL1	24-Apr-24	Ca-T	mg/L	0.05	0.05	9.26	9.26	0.0	1.00
MQL1	24-Apr-24	Cd-D	mg/L	0.00001	0.00001	0.000016	0.000016	0.0	1.00
MQL1	24-Apr-24	Cd-T	mg/L	0.00001	0.00001	<0.000010	<0.000010	0.0	1.00
MQL1	24-Apr-24	Cl-D	mg/L	1	1	<1.0	<1.0	0.0	1.00
MQL1	24-Apr-24	Co-D	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
MQL1	24-Apr-24	Co-T	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
MQL1	24-Apr-24	Cr-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
MQL1	24-Apr-24	Cr-T	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
MQL1	24-Apr-24	Cu-D	mg/L	0.0002	0.0002	0.00059	0.00059	0.0	1.00
MQL1	24-Apr-24	Cu-T	mg/L	0.0005	0.0005	0.00053	0.00053	0.0	1.00
MQL1	24-Apr-24	DOC	mg/L	0.5	0.5	2.6	2.6	0.0	1.00
MQL1	24-Apr-24	Fe-D	mg/L	0.005	0.005	0.0158	0.0158	0.0	1.00
MQL1	24-Apr-24	Fe-T	mg/L	0.01	0.01	0.022	0.022	0.0	1.00
MQL1	24-Apr-24	Hard-D	mg/L	0.5	0.5	31.1	31.1	0.0	1.00
MQL1	24-Apr-24	Hard-T	mg/L	0.5	0.5	27.8	27.8	0.0	1.00
MQL1	24-Apr-24	K-D	mg/L	0.05	0.05	0.189	0.189	0.0	1.00
MQL1	24-Apr-24	K-T	mg/L	0.05	0.05	0.16	0.16	0.0	1.00
MQL1	24-Apr-24	Li-D	mg/L	0.002	0.002	<0.0020	<0.0020	0.0	1.00
MQL1	24-Apr-24	Li-T	mg/L	0.002	0.002	<0.0020	<0.0020	0.0	1.00
MQL1	24-Apr-24	Mg-D	mg/L	0.05	0.05	1.28	1.28	0.0	1.00
MQL1	24-Apr-24	Mg-T	mg/L	0.05	0.05	1.13	1.13	0.0	1.00
MQL1	24-Apr-24	Mn-D	mg/L	0.001	0.001	0.0024	0.0024	0.0	1.00
MQL1	24-Apr-24	Mn-T	mg/L	0.001	0.001	0.0036	0.0036	0.0	1.00
MQL1	24-Apr-24	Mo-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
MQL1	24-Apr-24	Mo-T	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
MQL1	24-Apr-24	Na-D	mg/L	0.05	0.05	10.4	10.4	0.0	1.00
MQL1	24-Apr-24	Na-T	mg/L	0.05	0.05	9.33	9.33	0.0	1.00
MQL1	24-Apr-24	Ni-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00

Pink - Relevative Percent Difference (RPD) is greater than 20%.

Blue -Different Lab MDL

Table 44 Relative Percent Difference 19 Page(s)

Stn.Code 1	Date	Param.Code	Units	Lab MDL 1	Lab MDL 2	Result 1	Result 2	Rel.% Diff.	Ratio
MQL1	24-Apr-24	Ni-T	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
MQL1	24-Apr-24	N-NO23	mg/L	0.02	0.02	<0.020	<0.020	0.0	1.00
MQL1	24-Apr-24	Pb-D	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
MQL1	24-Apr-24	Pb-T	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
MQL1	24-Apr-24	P-D	mg/L	0.003	0.003	<0.0030	<0.0030	0.0	1.00
MQL1	24-Apr-24	P-T	mg/L	0.003	0.003	<0.0030	<0.0030	0.0	1.00
MQL1	24-Apr-24	Sb-D	mg/L	0.0005	0.0005	<0.00050	<0.00050	0.0	1.00
MQL1	24-Apr-24	Sb-T	mg/L	0.0005	0.0005	<0.00050	<0.00050	0.0	1.00
MQL1	24-Apr-24	S-D	mg/L	3	3	6.8	6.8	0.0	1.00
MQL1	24-Apr-24	Se-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
MQL1	24-Apr-24	Se-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
MQL1	24-Apr-24	Si-D	mg/L	0.1	0.1	1.99	1.99	0.0	1.00
MQL1	24-Apr-24	Si-T	mg/L	0.1	0.1	1.57	1.57	0.0	1.00
MQL1	24-Apr-24	Sn-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
MQL1	24-Apr-24	Sn-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
MQL1	24-Apr-24	SO4-D	mg/L	1	1	19	19	0.0	1.00
MQL1	24-Apr-24	Sr-D	mg/L	0.001	0.001	0.0494	0.0494	0.0	1.00
MQL1	24-Apr-24	Sr-T	mg/L	0.001	0.001	0.0431	0.0431	0.0	1.00
MQL1	24-Apr-24	S-T	mg/L	3	3	5.5	5.5	0.0	1.00
MQL1	24-Apr-24	Ti-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
MQL1	24-Apr-24	Ti-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
MQL1	24-Apr-24	Tl-D	mg/L	0.00001	0.00001	<0.000010	<0.000010	0.0	1.00
MQL1	24-Apr-24	Tl-T	mg/L	0.00001	0.00001	<0.000010	<0.000010	0.0	1.00
MQL1	24-Apr-24	Turb	NTU	0.1	0.1	0.2	0.2	0.0	1.00
MQL1	24-Apr-24	U-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
MQL1	24-Apr-24	U-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
MQL1	24-Apr-24	V-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
MQL1	24-Apr-24	V-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
MQL1	24-Apr-24	Zn-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
MQL1	24-Apr-24	Zn-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
MQL1	24-Apr-24	Zr-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
MQL1	24-Apr-24	Zr-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
MQL4	1-May-24	Ag-D	mg/L	0.00002	0.00002	<0.000020	<0.000020	0.0	1.00
MQL4	1-May-24	Ag-T	mg/L	0.00002	0.00002	<0.000020	<0.000020	0.0	1.00
MQL4	1-May-24	Al-D	mg/L	0.003	0.003	0.0137	0.0138	0.7	0.99
MQL4	1-May-24	Alk-PP	mg/L	1	1	<1.0	<1.0	0.0	1.00
MQL4	1-May-24	Alk-T	mg/L	1	1	36	36	0.0	1.00
MQL4	1-May-24	Al-T	mg/L	0.003	0.003	0.0160	0.0148	7.8	1.08
MQL4	1-May-24	As-D	mg/L	0.0001	0.0001	<0.00010	0.00011	9.5	0.91
MQL4	1-May-24	As-T	mg/L	0.0001	0.0001	0.00011	0.00011	0.0	1.00
MQL4	1-May-24	Ba-D	mg/L	0.001	0.001	0.0014	0.0014	0.0	1.00
MQL4	1-May-24	Ba-T	mg/L	0.001	0.001	0.0015	0.0014	6.9	1.07
MQL4	1-May-24	B-D	mg/L	0.05	0.05	0.051	0.052	1.9	0.98
MQL4	1-May-24	Be-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
MQL4	1-May-24	Be-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
MQL4	1-May-24	B-T	mg/L	0.05	0.05	<0.050	<0.050	0.0	1.00
MQL4	1-May-24	Ca-D	mg/L	0.05	0.05	10.6	10.5	0.9	1.01
MQL4	1-May-24	Ca-T	mg/L	0.05	0.05	9.54	9.31	2.4	1.02
MQL4	1-May-24	Cd-D	mg/L	0.00001	0.00001	<0.000010	<0.000010	0.0	1.00
MQL4	1-May-24	Cd-T	mg/L	0.00001	0.00001	<0.000010	<0.000010	0.0	1.00
MQL4	1-May-24	Cl-D	mg/L	1	1	<1.0	<1.0	0.0	1.00
MQL4	1-May-24	Co-D	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
MQL4	1-May-24	Co-T	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
MQL4	1-May-24	Cr-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
MQL4	1-May-24	Cr-T	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00

Pink - Relevative Percent Difference (RPD) is greater than 20%.

Blue -Different Lab MDL

Table 44 Relative Percent Difference 19 Page(s)

Stn.Code 1	Date	Param.Code	Units	Lab MDL 1	Lab MDL 2	Result 1	Result 2	Rel.% Diff.	Ratio
MQL4	1-May-24	Cu-D	mg/L	0.0002	0.0002	0.00052	0.00052	0.0	1.00
MQL4	1-May-24	Cu-T	mg/L	0.0005	0.0005	0.00054	0.00052	3.8	1.04
MQL4	1-May-24	DOC	mg/L	0.5	0.5	2.5	2.2	12.8	1.14
MQL4	1-May-24	Fe-D	mg/L	0.005	0.005	0.0187	0.0146	24.6	1.28
MQL4	1-May-24	Fe-T	mg/L	0.01	0.01	0.025	0.026	3.9	0.96
MQL4	1-May-24	Hard-D	mg/L	0.5	0.5	31.9	31.7	0.6	1.01
MQL4	1-May-24	Hard-T	mg/L	0.5	0.5	28.9	28.1	2.8	1.03
MQL4	1-May-24	K-D	mg/L	0.05	0.05	0.187	0.188	0.5	0.99
MQL4	1-May-24	K-T	mg/L	0.05	0.05	0.180	0.172	4.5	1.05
MQL4	1-May-24	Li-D	mg/L	0.002	0.002	<0.0020	<0.0020	0.0	1.00
MQL4	1-May-24	Li-T	mg/L	0.002	0.002	<0.0020	<0.0020	0.0	1.00
MQL4	1-May-24	Mg-D	mg/L	0.05	0.05	1.35	1.35	0.0	1.00
MQL4	1-May-24	Mg-T	mg/L	0.05	0.05	1.23	1.17	5.0	1.05
MQL4	1-May-24	Mn-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
MQL4	1-May-24	Mn-T	mg/L	0.001	0.001	0.0040	0.0039	2.5	1.03
MQL4	1-May-24	Mo-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
MQL4	1-May-24	Mo-T	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
MQL4	1-May-24	Na-D	mg/L	0.05	0.05	11.1	11.3	1.8	0.98
MQL4	1-May-24	Na-T	mg/L	0.05	0.05	10.2	9.84	3.6	1.04
MQL4	1-May-24	Ni-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
MQL4	1-May-24	Ni-T	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
MQL4	1-May-24	N-NO23	mg/L	0.02	0.02	<0.020	<0.020	0.0	1.00
MQL4	1-May-24	Pb-D	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
MQL4	1-May-24	Pb-T	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
MQL4	1-May-24	P-D	mg/L	0.003	0.003	<0.0030	<0.0030	0.0	1.00
MQL4	1-May-24	P-T	mg/L	0.003	0.003	0.0039	<0.0030	26.1	1.30
MQL4	1-May-24	Sb-D	mg/L	0.0005	0.0005	<0.00050	<0.00050	0.0	1.00
MQL4	1-May-24	Sb-T	mg/L	0.0005	0.0005	<0.00050	<0.00050	0.0	1.00
MQL4	1-May-24	S-D	mg/L	3	3	6.8	6.8	0.0	1.00
MQL4	1-May-24	Se-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
MQL4	1-May-24	Se-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
MQL4	1-May-24	Si-D	mg/L	0.1	0.1	1.76	1.80	2.2	0.98
MQL4	1-May-24	Si-T	mg/L	0.1	0.1	1.74	1.69	2.9	1.03
MQL4	1-May-24	Sn-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
MQL4	1-May-24	Sn-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
MQL4	1-May-24	SO4-D	mg/L	1	1	20	20	0.0	1.00
MQL4	1-May-24	Sr-D	mg/L	0.001	0.001	0.0476	0.0482	1.3	0.99
MQL4	1-May-24	Sr-T	mg/L	0.001	0.001	0.0455	0.0442	2.9	1.03
MQL4	1-May-24	S-T	mg/L	3	3	7.2	6.1	16.5	1.18
MQL4	1-May-24	Ti-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
MQL4	1-May-24	Ti-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
MQL4	1-May-24	Tl-D	mg/L	0.00001	0.00001	<0.000010	<0.000010	0.0	1.00
MQL4	1-May-24	Tl-T	mg/L	0.00001	0.00001	<0.000010	<0.000010	0.0	1.00
MQL4	1-May-24	Turb	NTU	0.1	0.1	0.26	0.25	3.9	1.04
MQL4	1-May-24	U-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
MQL4	1-May-24	U-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
MQL4	1-May-24	V-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
MQL4	1-May-24	V-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
MQL4	1-May-24	Zn-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
MQL4	1-May-24	Zn-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
MQL4	1-May-24	Zr-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
MQL4	1-May-24	Zr-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
NNL1	10-Apr-24	Ag-D	mg/L	0.00002	0.00002	<0.000020	<0.000020	0.0	1.00
NNL1	10-Apr-24	Ag-T	mg/L	0.00002	0.00002	<0.000020	<0.000020	0.0	1.00
NNL1	10-Apr-24	Al-D	mg/L	0.003	0.003	0.0393	0.0406	3.3	0.97

Pink - Relevative Percent Difference (RPD) is greater than 20%.

Blue -Different Lab MDL

Table 44 Relative Percent Difference 19 Page(s)

Stn.Code 1	Date	Param.Code	Units	Lab MDL 1	Lab MDL 2	Result 1	Result 2	Rel.% Diff.	Ratio
NNL1	10-Apr-24	Alk-PP	mg/L	1	1	<1.0	<1.0	0.0	1.00
NNL1	10-Apr-24	Alk-T	mg/L	1	1	11	11	0.0	1.00
NNL1	10-Apr-24	Al-T	mg/L	0.003	0.003	0.0426	0.0417	2.1	1.02
NNL1	10-Apr-24	As-D	mg/L	0.0001	0.0001	0.00021	0.00021	0.0	1.00
NNL1	10-Apr-24	As-T	mg/L	0.0001	0.0001	0.00021	0.00020	4.9	1.05
NNL1	10-Apr-24	Ba-D	mg/L	0.001	0.001	0.0010	0.0010	0.0	1.00
NNL1	10-Apr-24	Ba-T	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
NNL1	10-Apr-24	B-D	mg/L	0.05	0.05	<0.050	<0.050	0.0	1.00
NNL1	10-Apr-24	Be-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
NNL1	10-Apr-24	Be-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
NNL1	10-Apr-24	B-T	mg/L	0.05	0.05	<0.050	<0.050	0.0	1.00
NNL1	10-Apr-24	Ca-D	mg/L	0.05	0.05	3.54	3.52	0.6	1.01
NNL1	10-Apr-24	Ca-T	mg/L	0.05	0.05	3.17	3.09	2.6	1.03
NNL1	10-Apr-24	Cd-D	mg/L	0.00001	0.00001	<0.000010	<0.000010	0.0	1.00
NNL1	10-Apr-24	Cd-T	mg/L	0.00001	0.00001	<0.000010	<0.000010	0.0	1.00
NNL1	10-Apr-24	Cl-D	mg/L	1	1	<1.0	<1.0	0.0	1.00
NNL1	10-Apr-24	Co-D	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
NNL1	10-Apr-24	Co-T	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
NNL1	10-Apr-24	Cr-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
NNL1	10-Apr-24	Cr-T	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
NNL1	10-Apr-24	Cu-D	mg/L	0.0002	0.0002	0.00048	0.00049	2.1	0.98
NNL1	10-Apr-24	Cu-T	mg/L	0.0005	0.0005	<0.00050	0.00052	3.9	0.96
NNL1	10-Apr-24	DOC	mg/L	0.5	0.5	3.5	4.0	13.3	0.88
NNL1	10-Apr-24	Fe-D	mg/L	0.005	0.005	0.0336	0.0373	10.4	0.90
NNL1	10-Apr-24	Fe-T	mg/L	0.01	0.01	0.047	0.045	4.3	1.04
NNL1	10-Apr-24	Hard-D	mg/L	0.5	0.5	11.9	11.8	0.8	1.01
NNL1	10-Apr-24	Hard-T	mg/L	0.5	0.5	10.8	10.5	2.8	1.03
NNL1	10-Apr-24	K-D	mg/L	0.05	0.05	0.051	0.054	5.7	0.94
NNL1	10-Apr-24	K-T	mg/L	0.05	0.05	0.054	0.053	1.9	1.02
NNL1	10-Apr-24	Li-D	mg/L	0.002	0.002	<0.0020	<0.0020	0.0	1.00
NNL1	10-Apr-24	Li-T	mg/L	0.002	0.002	<0.0020	<0.0020	0.0	1.00
NNL1	10-Apr-24	Mg-D	mg/L	0.05	0.05	0.751	0.739	1.6	1.02
NNL1	10-Apr-24	Mg-T	mg/L	0.05	0.05	0.703	0.682	3.0	1.03
NNL1	10-Apr-24	Mn-D	mg/L	0.001	0.001	0.0031	0.0031	0.0	1.00
NNL1	10-Apr-24	Mn-T	mg/L	0.001	0.001	0.0033	0.0031	6.2	1.06
NNL1	10-Apr-24	Mo-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
NNL1	10-Apr-24	Mo-T	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
NNL1	10-Apr-24	Na-D	mg/L	0.05	0.05	1.03	1.04	1.0	0.99
NNL1	10-Apr-24	Na-T	mg/L	0.05	0.05	0.953	0.900	5.7	1.06
NNL1	10-Apr-24	Ni-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
NNL1	10-Apr-24	Ni-T	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
NNL1	10-Apr-24	N-NO23	mg/L	0.02	0.02	<0.020	<0.020	0.0	1.00
NNL1	10-Apr-24	Pb-D	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
NNL1	10-Apr-24	Pb-T	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
NNL1	10-Apr-24	P-T	mg/L	0.003	0.003	0.0046	0.0037	21.7	1.24
NNL1	10-Apr-24	Sb-D	mg/L	0.0005	0.0005	<0.00050	<0.00050	0.0	1.00
NNL1	10-Apr-24	Sb-T	mg/L	0.0005	0.0005	<0.00050	<0.00050	0.0	1.00
NNL1	10-Apr-24	S-D	mg/L	3	3	<3.0	<3.0	0.0	1.00
NNL1	10-Apr-24	Se-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
NNL1	10-Apr-24	Se-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
NNL1	10-Apr-24	Si-D	mg/L	0.1	0.1	3.16	3.15	0.3	1.00
NNL1	10-Apr-24	Si-T	mg/L	0.1	0.1	3.15	3.06	2.9	1.03
NNL1	10-Apr-24	Sn-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
NNL1	10-Apr-24	Sn-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
NNL1	10-Apr-24	SO4-D	mg/L	1	1	<1.0	<1.0	0.0	1.00

Pink - Relevative Percent Difference (RPD) is greater than 20%.

Blue -Different Lab MDL

Table 44 Relative Percent Difference 19 Page(s)

Stn.Code 1	Date	Param.Code	Units	Lab MDL 1	Lab MDL 2	Result 1	Result 2	Rel.% Diff.	Ratio
NNL1	10-Apr-24	Sr-D	mg/L	0.001	0.001	0.0098	0.0100	2.0	0.98
NNL1	10-Apr-24	Sr-T	mg/L	0.001	0.001	0.0095	0.0091	4.3	1.04
NNL1	10-Apr-24	S-T	mg/L	3	3	<3.0	<3.0	0.0	1.00
NNL1	10-Apr-24	Ti-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
NNL1	10-Apr-24	Ti-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
NNL1	10-Apr-24	Tl-D	mg/L	0.00001	0.00001	<0.000010	<0.000010	0.0	1.00
NNL1	10-Apr-24	Tl-T	mg/L	0.00001	0.00001	<0.000010	<0.000010	0.0	1.00
NNL1	10-Apr-24	Turb	NTU	0.1	0.1	0.31	0.32	3.2	0.97
NNL1	10-Apr-24	U-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
NNL1	10-Apr-24	U-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
NNL1	10-Apr-24	V-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
NNL1	10-Apr-24	V-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
NNL1	10-Apr-24	Zn-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
NNL1	10-Apr-24	Zn-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
NNL1	10-Apr-24	Zr-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
NNL1	10-Apr-24	Zr-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
PDSR	6-May-24	Ag-D	mg/L	0.00002	0.00002	<0.000020	<0.000020	0.0	1.00
PDSR	6-May-24	Ag-T	mg/L	0.00002	0.00002	<0.000020	<0.000020	0.0	1.00
PDSR	6-May-24	Al-D	mg/L	0.003	0.003	0.0073	0.0065	11.6	1.12
PDSR	6-May-24	Alk-PP	mg/L	1	1	<1.0	<1.0	0.0	1.00
PDSR	6-May-24	Alk-T	mg/L	1	1	190	190	0.0	1.00
PDSR	6-May-24	Al-T	mg/L	0.003	0.003	0.0074	0.0073	1.4	1.01
PDSR	6-May-24	As-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
PDSR	6-May-24	As-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
PDSR	6-May-24	Ba-D	mg/L	0.001	0.001	0.0212	0.0212	0.0	1.00
PDSR	6-May-24	Ba-T	mg/L	0.001	0.001	0.0185	0.0186	0.5	0.99
PDSR	6-May-24	B-D	mg/L	0.05	0.05	0.303	0.290	4.4	1.04
PDSR	6-May-24	Be-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
PDSR	6-May-24	Be-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
PDSR	6-May-24	B-T	mg/L	0.05	0.05	0.268	0.252	6.2	1.06
PDSR	6-May-24	Ca-D	mg/L	0.05	0.05	226	221	2.2	1.02
PDSR	6-May-24	Ca-T	mg/L	0.05	0.05	202	202	0.0	1.00
PDSR	6-May-24	Cd-D	mg/L	0.00001	0.00001	<0.000010	<0.000010	0.0	1.00
PDSR	6-May-24	Cd-T	mg/L	0.00001	0.00001	<0.000010	<0.000010	0.0	1.00
PDSR	6-May-24	Co-D	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
PDSR	6-May-24	Co-T	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
PDSR	6-May-24	Cr-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
PDSR	6-May-24	Cr-T	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
PDSR	6-May-24	Cu-D	mg/L	0.0002	0.0002	0.00037	0.00037	0.0	1.00
PDSR	6-May-24	Cu-T	mg/L	0.0005	0.0005	<0.00050	<0.00050	0.0	1.00
PDSR	6-May-24	Fe-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
PDSR	6-May-24	Fe-T	mg/L	0.01	0.01	<0.010	<0.010	0.0	1.00
PDSR	6-May-24	Hard-D	mg/L	0.5	0.5	721	703	2.5	1.03
PDSR	6-May-24	Hard-T	mg/L	0.5	0.5	648	649	0.2	1.00
PDSR	6-May-24	K-D	mg/L	0.05	0.05	1.51	1.49	1.3	1.01
PDSR	6-May-24	K-T	mg/L	0.05	0.05	1.38	1.34	2.9	1.03
PDSR	6-May-24	Li-D	mg/L	0.002	0.002	<0.0020	<0.0020	0.0	1.00
PDSR	6-May-24	Li-T	mg/L	0.002	0.002	<0.0020	<0.0020	0.0	1.00
PDSR	6-May-24	Mg-D	mg/L	0.05	0.05	38.1	37.0	2.9	1.03
PDSR	6-May-24	Mg-T	mg/L	0.05	0.05	34.8	35.2	1.1	0.99
PDSR	6-May-24	Mn-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
PDSR	6-May-24	Mn-T	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
PDSR	6-May-24	Mo-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
PDSR	6-May-24	Mo-T	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
PDSR	6-May-24	Na-D	mg/L	0.05	0.05	40.9	41.3	1.0	0.99

Pink - Relevative Percent Difference (RPD) is greater than 20%.

Blue -Different Lab MDL

Table 44 Relative Percent Difference 19 Page(s)

Stn.Code 1	Date	Param.Code	Units	Lab MDL 1	Lab MDL 2	Result 1	Result 2	Rel.% Diff.	Ratio
PDSR	6-May-24	Na-T	mg/L	0.05	0.05	37.7	37.7	0.0	1.00
PDSR	6-May-24	Ni-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
PDSR	6-May-24	Ni-T	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
PDSR	6-May-24	Pb-D	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
PDSR	6-May-24	Pb-T	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
PDSR	6-May-24	Sb-D	mg/L	0.0005	0.0005	<0.00050	<0.00050	0.0	1.00
PDSR	6-May-24	Sb-T	mg/L	0.0005	0.0005	<0.00050	<0.00050	0.0	1.00
PDSR	6-May-24	S-D	mg/L	3	3	213	213	0.0	1.00
PDSR	6-May-24	Se-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
PDSR	6-May-24	Se-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
PDSR	6-May-24	Si-D	mg/L	0.1	0.1	3.71	3.63	2.2	1.02
PDSR	6-May-24	Si-T	mg/L	0.1	0.1	3.17	3.24	2.2	0.98
PDSR	6-May-24	Sn-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
PDSR	6-May-24	Sn-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
PDSR	6-May-24	SO4-D	mg/L	5	5	620	620	0.0	1.00
PDSR	6-May-24	Sr-D	mg/L	0.001	0.001	1.39	1.36	2.2	1.02
PDSR	6-May-24	Sr-T	mg/L	0.001	0.001	1.23	1.25	1.6	0.98
PDSR	6-May-24	S-T	mg/L	3	3	195	200	2.5	0.98
PDSR	6-May-24	Ti-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
PDSR	6-May-24	Ti-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
PDSR	6-May-24	Tl-D	mg/L	0.00001	0.00001	<0.000010	<0.000010	0.0	1.00
PDSR	6-May-24	Tl-T	mg/L	0.00001	0.00001	<0.000010	<0.000010	0.0	1.00
PDSR	6-May-24	TSS	mg/L	1	1	1.2	1.6	28.6	0.75
PDSR	6-May-24	U-D	mg/L	0.0001	0.0001	0.00044	0.00044	0.0	1.00
PDSR	6-May-24	U-T	mg/L	0.0001	0.0001	0.00038	0.00038	0.0	1.00
PDSR	6-May-24	V-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
PDSR	6-May-24	V-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
PDSR	6-May-24	Zn-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
PDSR	6-May-24	Zn-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
PDSR	6-May-24	Zr-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
PDSR	6-May-24	Zr-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
QRDS1	15-Apr-24	Ag-D	mg/L	0.00002	0.00002	<0.000020	<0.000020	0.0	1.00
QRDS1	15-Apr-24	Ag-T	mg/L	0.00002	0.00002	<0.000020	<0.000020	0.0	1.00
QRDS1	15-Apr-24	Al-D	mg/L	0.003	0.003	0.0146	0.0148	1.4	0.99
QRDS1	15-Apr-24	Alk-PP	mg/L	1	1	<1.0	<1.0	0.0	1.00
QRDS1	15-Apr-24	Alk-T	mg/L	1	1	38	38	0.0	1.00
QRDS1	15-Apr-24	Al-T	mg/L	0.003	0.003	0.0200	0.0185	7.8	1.08
QRDS1	15-Apr-24	As-D	mg/L	0.0001	0.0001	0.00049	0.00048	2.1	1.02
QRDS1	15-Apr-24	As-T	mg/L	0.0001	0.0001	0.00054	0.00056	3.6	0.96
QRDS1	15-Apr-24	Ba-D	mg/L	0.001	0.001	0.0023	0.0024	4.3	0.96
QRDS1	15-Apr-24	Ba-T	mg/L	0.001	0.001	0.0020	0.0022	9.5	0.91
QRDS1	15-Apr-24	B-D	mg/L	0.05	0.05	0.051	<0.050	2.0	1.02
QRDS1	15-Apr-24	Be-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
QRDS1	15-Apr-24	Be-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
QRDS1	15-Apr-24	B-T	mg/L	0.05	0.05	<0.050	<0.050	0.0	1.00
QRDS1	15-Apr-24	Ca-D	mg/L	0.05	0.05	11.6	11.1	4.4	1.05
QRDS1	15-Apr-24	Ca-T	mg/L	0.05	0.05	9.39	10.2	8.3	0.92
QRDS1	15-Apr-24	Cd-D	mg/L	0.00001	0.00001	<0.000010	<0.000010	0.0	1.00
QRDS1	15-Apr-24	Cd-T	mg/L	0.00001	0.00001	<0.000010	<0.000010	0.0	1.00
QRDS1	15-Apr-24	Cl-D	mg/L	1	1	<1.0	<1.0	0.0	1.00
QRDS1	15-Apr-24	Co-D	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
QRDS1	15-Apr-24	Co-T	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
QRDS1	15-Apr-24	Cr-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
QRDS1	15-Apr-24	Cr-T	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
QRDS1	15-Apr-24	Cu-D	mg/L	0.0002	0.0002	0.00052	0.00055	5.6	0.95

Pink - Relevative Percent Difference (RPD) is greater than 20%.

Blue -Different Lab MDL

Table 44 Relative Percent Difference 19 Page(s)

Stn.Code 1	Date	Param.Code	Units	Lab MDL 1	Lab MDL 2	Result 1	Result 2	Rel.% Diff.	Ratio
QRDS1	15-Apr-24	Cu-T	mg/L	0.0005	0.0005	<0.00050	0.00052	3.9	0.96
QRDS1	15-Apr-24	DOC	mg/L	0.5	0.5	2.3	2.5	8.3	0.92
QRDS1	15-Apr-24	Fe-D	mg/L	0.005	0.005	0.0213	0.0214	0.5	1.00
QRDS1	15-Apr-24	Fe-T	mg/L	0.01	0.01	0.038	0.032	17.1	1.19
QRDS1	15-Apr-24	Hard-D	mg/L	0.5	0.5	35.1	33.8	3.8	1.04
QRDS1	15-Apr-24	Hard-T	mg/L	0.5	0.5	28.7	31.4	9.0	0.91
QRDS1	15-Apr-24	K-D	mg/L	0.05	0.05	0.221	0.220	0.5	1.00
QRDS1	15-Apr-24	K-T	mg/L	0.05	0.05	0.195	0.216	10.2	0.90
QRDS1	15-Apr-24	Li-D	mg/L	0.002	0.002	<0.0020	<0.0020	0.0	1.00
QRDS1	15-Apr-24	Li-T	mg/L	0.002	0.002	<0.0020	<0.0020	0.0	1.00
QRDS1	15-Apr-24	Mg-D	mg/L	0.05	0.05	1.47	1.46	0.7	1.01
QRDS1	15-Apr-24	Mg-T	mg/L	0.05	0.05	1.27	1.42	11.2	0.89
QRDS1	15-Apr-24	Mn-D	mg/L	0.001	0.001	0.0016	0.0017	6.1	0.94
QRDS1	15-Apr-24	Mn-T	mg/L	0.001	0.001	0.0032	0.0030	6.5	1.07
QRDS1	15-Apr-24	Mo-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
QRDS1	15-Apr-24	Mo-T	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
QRDS1	15-Apr-24	Na-D	mg/L	0.05	0.05	12.6	12.5	0.8	1.01
QRDS1	15-Apr-24	Na-T	mg/L	0.05	0.05	10.7	11.6	8.1	0.92
QRDS1	15-Apr-24	Ni-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
QRDS1	15-Apr-24	Ni-T	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
QRDS1	15-Apr-24	Pb-D	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
QRDS1	15-Apr-24	Pb-T	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
QRDS1	15-Apr-24	Sb-D	mg/L	0.0005	0.0005	<0.00050	<0.00050	0.0	1.00
QRDS1	15-Apr-24	Sb-T	mg/L	0.0005	0.0005	<0.00050	<0.00050	0.0	1.00
QRDS1	15-Apr-24	S-D	mg/L	3	3	8.5	8.3	2.4	1.02
QRDS1	15-Apr-24	Se-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
QRDS1	15-Apr-24	Se-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
QRDS1	15-Apr-24	Si-D	mg/L	0.1	0.1	2.13	2.03	4.8	1.05
QRDS1	15-Apr-24	Si-T	mg/L	0.1	0.1	1.80	1.96	8.5	0.92
QRDS1	15-Apr-24	Sn-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
QRDS1	15-Apr-24	Sn-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
QRDS1	15-Apr-24	SO4-D	mg/L	1	1	25	25	0.0	1.00
QRDS1	15-Apr-24	Sr-D	mg/L	0.001	0.001	0.0570	0.0569	0.2	1.00
QRDS1	15-Apr-24	Sr-T	mg/L	0.001	0.001	0.0482	0.0531	9.7	0.91
QRDS1	15-Apr-24	S-T	mg/L	3	3	7.3	7.9	7.9	0.92
QRDS1	15-Apr-24	Ti-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
QRDS1	15-Apr-24	Ti-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
QRDS1	15-Apr-24	Tl-D	mg/L	0.00001	0.00001	<0.000010	<0.000010	0.0	1.00
QRDS1	15-Apr-24	Tl-T	mg/L	0.00001	0.00001	<0.000010	<0.000010	0.0	1.00
QRDS1	15-Apr-24	TSS	mg/L	1	1	<1.0	<1.0	0.0	1.00
QRDS1	15-Apr-24	U-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
QRDS1	15-Apr-24	U-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
QRDS1	15-Apr-24	V-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
QRDS1	15-Apr-24	V-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
QRDS1	15-Apr-24	Zn-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
QRDS1	15-Apr-24	Zn-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
QRDS1	15-Apr-24	Zr-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
QRDS1	15-Apr-24	Zr-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
QU1410	14-May-24	Ag-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
QU1410	14-May-24	Al-D	mg/L	0.015	0.015	<0.015	<0.015	0.0	1.00
QU1410	14-May-24	Alk-PP	mg/L	1	1	<1.0	<1.0	0.0	1.00
QU1410	14-May-24	Alk-T	mg/L	1	1	330	330	0.0	1.00
QU1410	14-May-24	As-D	mg/L	0.0005	0.0005	0.0952	0.0961	0.9	0.99
QU1410	14-May-24	Ba-D	mg/L	0.005	0.005	0.0139	0.0141	1.4	0.99
QU1410	14-May-24	B-D	mg/L	0.25	0.25	1.10	1.08	1.8	1.02

Pink - Relevative Percent Difference (RPD) is greater than 20%.

Blue -Different Lab MDL

Table 44 Relative Percent Difference 19 Page(s)

Stn.Code 1	Date	Param.Code	Units	Lab MDL 1	Lab MDL 2	Result 1	Result 2	Rel.% Diff.	Ratio
QU1410	14-May-24	Be-D	mg/L	0.0005	0.0005	<0.00050	<0.00050	0.0	1.00
QU1410	14-May-24	Br-D	mg/L	0.1	0.1	<0.10	<0.10	0.0	1.00
QU1410	14-May-24	Ca-D	mg/L	0.25	0.25	519	515	0.8	1.01
QU1410	14-May-24	Cd-D	mg/L	0.00005	0.00005	<0.000050	<0.000050	0.0	1.00
QU1410	14-May-24	Cl-D	mg/L	1	1	3.5	3.7	5.6	0.95
QU1410	14-May-24	Co-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
QU1410	14-May-24	Cr-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
QU1410	14-May-24	Cu-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
QU1410	14-May-24	DOC	mg/L	0.5	0.5	1.7	1.5	12.5	1.13
QU1410	14-May-24	F-D	mg/L	0.05	0.05	0.14	0.15	6.9	0.93
QU1410	14-May-24	Fe-D	mg/L	0.025	0.025	2.28	2.26	0.9	1.01
QU1410	14-May-24	H2S	mg/L	0.002	0.002	<0.0020	<0.0020	0.0	1.00
QU1410	14-May-24	Hard-D	mg/L	0.5	0.5	2060	2050	0.5	1.00
QU1410	14-May-24	K-D	mg/L	0.25	0.25	7.33	7.41	1.1	0.99
QU1410	14-May-24	Li-D	mg/L	0.01	0.01	0.145	0.143	1.4	1.01
QU1410	14-May-24	Mg-D	mg/L	0.25	0.25	185	186	0.5	0.99
QU1410	14-May-24	Mn-D	mg/L	0.005	0.005	1.40	1.43	2.1	0.98
QU1410	14-May-24	Mo-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
QU1410	14-May-24	Na-D	mg/L	0.25	0.25	51.6	51.8	0.4	1.00
QU1410	14-May-24	N-D	mg/L	0.02	0.02	0.227	0.250	9.6	0.91
QU1410	14-May-24	Ni-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
QU1410	14-May-24	Pb-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
QU1410	14-May-24	P-D	mg/L	0.003	0.003	0.013	0.013	0.0	1.00
QU1410	14-May-24	S2-T	mg/L	0.0018	0.0018	<0.0018	<0.0018	0.0	1.00
QU1410	14-May-24	Sb-D	mg/L	0.0025	0.0025	<0.0025	<0.0025	0.0	1.00
QU1410	14-May-24	S-D	mg/L	15	15	632	641	1.4	0.99
QU1410	14-May-24	Se-D	mg/L	0.0005	0.0005	<0.00050	<0.00050	0.0	1.00
QU1410	14-May-24	Si-D	mg/L	0.5	0.5	3.37	3.27	3.0	1.03
QU1410	14-May-24	Sn-D	mg/L	0.025	0.025	<0.025	<0.025	0.0	1.00
QU1410	14-May-24	SO4-D	mg/L	25	25	1800	1800	0.0	1.00
QU1410	14-May-24	Sr-D	mg/L	0.005	0.005	4.52	4.59	1.5	0.98
QU1410	14-May-24	Ti-D	mg/L	0.025	0.025	<0.025	<0.025	0.0	1.00
QU1410	14-May-24	Tl-D	mg/L	0.00005	0.00005	<0.000050	<0.000050	0.0	1.00
QU1410	14-May-24	Turb	NTU	0.1	0.1	22	29	27.5	0.76
QU1410	14-May-24	U-D	mg/L	0.0005	0.0005	0.00085	0.00083	2.4	1.02
QU1410	14-May-24	V-D	mg/L	0.025	0.025	<0.025	<0.025	0.0	1.00
QU1410	14-May-24	Zn-D	mg/L	0.025	0.025	<0.025	<0.025	0.0	1.00
QU1410	14-May-24	Zr-D	mg/L	0.0005	0.0005	<0.00050	<0.00050	0.0	1.00
QU1410	14-May-24	Ag-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
QU1410	14-May-24	Al-D	mg/L	0.015	0.015	<0.015	<0.015	0.0	1.00
QU1410	14-May-24	Alk-PP	mg/L	1	1	<1.0	<1.0	0.0	1.00
QU1410	14-May-24	Alk-T	mg/L	1	1	330	330	0.0	1.00
QU1410	14-May-24	As-D	mg/L	0.0005	0.0005	0.0952	0.0952	0.0	1.00
QU1410	14-May-24	Ba-D	mg/L	0.005	0.005	0.0139	0.0139	0.0	1.00
QU1410	14-May-24	B-D	mg/L	0.25	0.25	1.10	1.10	0.0	1.00
QU1410	14-May-24	Be-D	mg/L	0.0005	0.0005	<0.00050	<0.00050	0.0	1.00
QU1410	14-May-24	Br-D	mg/L	0.1	0.1	<0.10	<0.10	0.0	1.00
QU1410	14-May-24	Ca-D	mg/L	0.25	0.25	519	519	0.0	1.00
QU1410	14-May-24	Cd-D	mg/L	0.00005	0.00005	<0.000050	<0.000050	0.0	1.00
QU1410	14-May-24	Cl-D	mg/L	1	1	3.5	3.5	0.0	1.00
QU1410	14-May-24	Co-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
QU1410	14-May-24	Cr-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
QU1410	14-May-24	Cu-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
QU1410	14-May-24	DOC	mg/L	0.5	0.5	1.7	1.7	0.0	1.00
QU1410	14-May-24	F-D	mg/L	0.05	0.05	0.14	0.14	0.0	1.00

Pink - Relevative Percent Difference (RPD) is greater than 20%.

Blue -Different Lab MDL

Table 44 Relative Percent Difference 19 Page(s)

Stn.Code 1	Date	Param.Code	Units	Lab MDL 1	Lab MDL 2	Result 1	Result 2	Rel.% Diff.	Ratio
QU1410	14-May-24	Fe-D	mg/L	0.025	0.025	2.28	2.28	0.0	1.00
QU1410	14-May-24	H2S	mg/L	0.002	0.002	<0.0020	<0.0020	0.0	1.00
QU1410	14-May-24	Hard-D	mg/L	0.5	0.5	2060	2060	0.0	1.00
QU1410	14-May-24	K-D	mg/L	0.25	0.25	7.33	7.33	0.0	1.00
QU1410	14-May-24	Li-D	mg/L	0.01	0.01	0.145	0.145	0.0	1.00
QU1410	14-May-24	Mg-D	mg/L	0.25	0.25	185	185	0.0	1.00
QU1410	14-May-24	Mn-D	mg/L	0.005	0.005	1.40	1.40	0.0	1.00
QU1410	14-May-24	Mo-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
QU1410	14-May-24	Na-D	mg/L	0.25	0.25	51.6	51.6	0.0	1.00
QU1410	14-May-24	N-D	mg/L	0.02	0.02	0.227	0.227	0.0	1.00
QU1410	14-May-24	Ni-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
QU1410	14-May-24	Pb-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
QU1410	14-May-24	P-D	mg/L	0.003	0.003	0.013	0.013	0.0	1.00
QU1410	14-May-24	S2-T	mg/L	0.0018	0.0018	<0.0018	<0.0018	0.0	1.00
QU1410	14-May-24	Sb-D	mg/L	0.0025	0.0025	<0.0025	<0.0025	0.0	1.00
QU1410	14-May-24	S-D	mg/L	15	15	632	632	0.0	1.00
QU1410	14-May-24	Se-D	mg/L	0.0005	0.0005	<0.00050	<0.00050	0.0	1.00
QU1410	14-May-24	Si-D	mg/L	0.5	0.5	3.37	3.37	0.0	1.00
QU1410	14-May-24	Sn-D	mg/L	0.025	0.025	<0.025	<0.025	0.0	1.00
QU1410	14-May-24	SO4-D	mg/L	25	25	1800	1800	0.0	1.00
QU1410	14-May-24	Sr-D	mg/L	0.005	0.005	4.52	4.52	0.0	1.00
QU1410	14-May-24	Ti-D	mg/L	0.025	0.025	<0.025	<0.025	0.0	1.00
QU1410	14-May-24	Tl-D	mg/L	0.00005	0.00005	<0.000050	<0.000050	0.0	1.00
QU1410	14-May-24	Turb	NTU	0.1	0.1	22	22	0.0	1.00
QU1410	14-May-24	U-D	mg/L	0.0005	0.0005	0.00085	0.00085	0.0	1.00
QU1410	14-May-24	V-D	mg/L	0.025	0.025	<0.025	<0.025	0.0	1.00
QU1410	14-May-24	Zn-D	mg/L	0.025	0.025	<0.025	<0.025	0.0	1.00
QU1410	14-May-24	Zr-D	mg/L	0.0005	0.0005	<0.00050	<0.00050	0.0	1.00
SPC	3-Jun-24	Alk-PP	mg/L	1	1	<1.0	<1.0	0.0	1.00
SPC	3-Jun-24	Alk-T	mg/L	1	1	77	78	1.3	0.99
SPC	3-Jun-24	SO4-D	mg/L	5	5	250	260	3.9	0.96
SPC	3-Jun-24	TSS	mg/L	1	1	<1.0	<1.0	0.0	1.00
SPCEFF	29-Apr-24	H2S	mg/L	0.002	0.002	0.057	0.073	24.6	0.78
SPCEFF	29-Apr-24	S2-T	mg/L	0.0018	0.0018	0.053	0.069	26.2	0.77
SPCEFF	29-Apr-24	SO4-D	mg/L	5	5	540	540	0.0	1.00
SPCEFF	17-Jun-24	H2S	mg/L	0.002	0.002	<0.0020	<0.0020	0.0	1.00
SPCEFF	17-Jun-24	S2-T	mg/L	0.0018	0.0018	<0.0018	<0.0018	0.0	1.00
SPCEFF	17-Jun-24	SO4-D	mg/L	5	5	450	470	4.3	0.96
SPCEFF	17-Jun-24	H2S	mg/L	0.002	0.002	<0.0020	<0.0020	0.0	1.00
SPCEFF	17-Jun-24	S2-T	mg/L	0.0018	0.0018	<0.0018	<0.0018	0.0	1.00
SPCEFF	17-Jun-24	SO4-D	mg/L	5	5	450	450	0.0	1.00
SPD	10-Jun-24	SO4-D	mg/L	5	5	400	400	0.0	1.00
SPD	10-Jun-24	TSS	mg/L	1	1	<1.0	1.6	46.2	0.62
SPD	10-Jun-24	SO4-D	mg/L	5	5	400	400	0.0	1.00
SPD	10-Jun-24	TSS	mg/L	1	1	<1.0	<1.0	0.0	1.00
WA	3-Apr-24	Ag-D	mg/L	0.00002	0.00002	<0.000020	<0.000020	0.0	1.00
WA	3-Apr-24	Ag-T	mg/L	0.00002	0.00002	<0.000020	<0.000020	0.0	1.00
WA	3-Apr-24	Al-D	mg/L	0.003	0.003	0.0200	0.0201	0.5	1.00
WA	3-Apr-24	Alk-PP	mg/L	1	1	<1.0	<1.0	0.0	1.00
WA	3-Apr-24	Alk-T	mg/L	1	1	18	18	0.0	1.00
WA	3-Apr-24	Al-T	mg/L	0.003	0.003	0.0341	0.0322	5.7	1.06
WA	3-Apr-24	As-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
WA	3-Apr-24	As-T	mg/L	0.0001	0.0001	0.00010	0.00010	0.0	1.00
WA	3-Apr-24	Ba-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
WA	3-Apr-24	Ba-T	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00

Pink - Relevative Percent Difference (RPD) is greater than 20%.

Blue -Different Lab MDL

Table 44 Relative Percent Difference 19 Page(s)

Stn.Code 1	Date	Param.Code	Units	Lab MDL 1	Lab MDL 2	Result 1	Result 2	Rel.% Diff.	Ratio
WA	3-Apr-24	B-D	mg/L	0.05	0.05	<0.050	<0.050	0.0	1.00
WA	3-Apr-24	Be-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
WA	3-Apr-24	Be-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
WA	3-Apr-24	B-T	mg/L	0.05	0.05	<0.050	<0.050	0.0	1.00
WA	3-Apr-24	Ca-D	mg/L	0.05	0.05	6.32	6.31	0.2	1.00
WA	3-Apr-24	Ca-T	mg/L	0.05	0.05	5.88	5.82	1.0	1.01
WA	3-Apr-24	Cd-D	mg/L	0.00001	0.00001	<0.000010	<0.000010	0.0	1.00
WA	3-Apr-24	Cd-T	mg/L	0.00001	0.00001	<0.000010	<0.000010	0.0	1.00
WA	3-Apr-24	Cl-D	mg/L	1	1	<1.0	<1.0	0.0	1.00
WA	3-Apr-24	Co-D	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
WA	3-Apr-24	Co-T	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
WA	3-Apr-24	Cr-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
WA	3-Apr-24	Cr-T	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
WA	3-Apr-24	Cu-D	mg/L	0.0002	0.0002	0.00060	0.00061	1.7	0.98
WA	3-Apr-24	Cu-T	mg/L	0.0005	0.0005	0.00071	0.00066	7.3	1.08
WA	3-Apr-24	DOC	mg/L	0.5	0.5	2.5	2.3	8.3	1.09
WA	3-Apr-24	Fe-D	mg/L	0.005	0.005	0.0093	0.0087	6.7	1.07
WA	3-Apr-24	Fe-T	mg/L	0.01	0.01	0.022	0.022	0.0	1.00
WA	3-Apr-24	Hard-D	mg/L	0.5	0.5	18.6	18.6	0.0	1.00
WA	3-Apr-24	Hard-T	mg/L	0.5	0.5	17.5	17.2	1.7	1.02
WA	3-Apr-24	K-D	mg/L	0.05	0.05	0.062	0.063	1.6	0.98
WA	3-Apr-24	K-T	mg/L	0.05	0.05	0.059	0.054	8.8	1.09
WA	3-Apr-24	Li-D	mg/L	0.002	0.002	<0.0020	<0.0020	0.0	1.00
WA	3-Apr-24	Li-T	mg/L	0.002	0.002	<0.0020	<0.0020	0.0	1.00
WA	3-Apr-24	Mg-D	mg/L	0.05	0.05	0.683	0.686	0.4	1.00
WA	3-Apr-24	Mg-T	mg/L	0.05	0.05	0.683	0.635	7.3	1.08
WA	3-Apr-24	Mn-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
WA	3-Apr-24	Mn-T	mg/L	0.001	0.001	0.0013	0.0012	8.0	1.08
WA	3-Apr-24	Mo-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
WA	3-Apr-24	Mo-T	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
WA	3-Apr-24	Na-D	mg/L	0.05	0.05	0.682	0.683	0.1	1.00
WA	3-Apr-24	Na-T	mg/L	0.05	0.05	0.619	0.595	4.0	1.04
WA	3-Apr-24	Ni-D	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
WA	3-Apr-24	Ni-T	mg/L	0.001	0.001	<0.0010	<0.0010	0.0	1.00
WA	3-Apr-24	Pb-D	mg/L	0.0002	0.0002	<0.00020	<0.00020	0.0	1.00
WA	3-Apr-24	Pb-T	mg/L	0.0002	0.0002	0.00060	<0.00020	100.0	3.00
WA	3-Apr-24	Sb-D	mg/L	0.0005	0.0005	<0.00050	<0.00050	0.0	1.00
WA	3-Apr-24	Sb-T	mg/L	0.0005	0.0005	<0.00050	<0.00050	0.0	1.00
WA	3-Apr-24	S-D	mg/L	3	3	<3.0	<3.0	0.0	1.00
WA	3-Apr-24	Se-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
WA	3-Apr-24	Se-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
WA	3-Apr-24	Si-D	mg/L	0.1	0.1	1.89	1.90	0.5	0.99
WA	3-Apr-24	Si-T	mg/L	0.1	0.1	1.79	1.77	1.1	1.01
WA	3-Apr-24	Sn-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
WA	3-Apr-24	Sn-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
WA	3-Apr-24	SO4-D	mg/L	1	1	<1.0	<1.0	0.0	1.00
WA	3-Apr-24	Sr-D	mg/L	0.001	0.001	0.0108	0.0107	0.9	1.01
WA	3-Apr-24	Sr-T	mg/L	0.001	0.001	0.0100	0.0096	4.1	1.04
WA	3-Apr-24	S-T	mg/L	3	3	<3.0	<3.0	0.0	1.00
WA	3-Apr-24	Ti-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
WA	3-Apr-24	Ti-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
WA	3-Apr-24	Tl-D	mg/L	0.00001	0.00001	<0.000010	<0.000010	0.0	1.00
WA	3-Apr-24	Tl-T	mg/L	0.00001	0.00001	<0.000010	<0.000010	0.0	1.00
WA	3-Apr-24	TSS	mg/L	1	1	<1.0	<1.0	0.0	1.00
WA	3-Apr-24	U-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00

Pink - Relevative Percent Difference (RPD) is greater than 20%.

Blue -Different Lab MDL

Table 44 Relative Percent Difference 19 Page(s)

Stn.Code 1	Date	Param.Code	Units	Lab MDL 1	Lab MDL 2	Result 1	Result 2	Rel.% Diff.	Ratio
WA	3-Apr-24	U-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
WA	3-Apr-24	V-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
WA	3-Apr-24	V-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
WA	3-Apr-24	Zn-D	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
WA	3-Apr-24	Zn-T	mg/L	0.005	0.005	<0.0050	<0.0050	0.0	1.00
WA	3-Apr-24	Zr-D	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
WA	3-Apr-24	Zr-T	mg/L	0.0001	0.0001	<0.00010	<0.00010	0.0	1.00
WC	2-Apr-24	SO4-D	mg/L	5	5	380	380	0.0	1.00
WC	2-Apr-24	TSS	mg/L	1	1	<1.0	2.0	66.7	0.50

Pink - Relevative Percent Difference (RPD) is greater than 20%.
Blue -Different Lab MDL

Table 45 RPD Greater Than 20% 1 Page(s)

Relative Percent Difference (RPD) Greater than 20%										
Stn.Code	Date	Param.Code	Units	Lab MDL 1	Lab MDL 2	Result 1	Result 2	Rel.% Diff.	Ratio	Are Lab MDL 1 and 2 Equal
WC	2-Apr-24	TSS	mg/L	1	1	<1.0	2	66.7	0.5	TRUE
WA	3-Apr-24	Pb-T	mg/L	0.0002	0.0002	0.0006	<0.00020	100	3	TRUE
NNL1	10-Apr-24	P-T	mg/L	0.003	0.003	0.0046	0.0037	21.7	1.24	TRUE
LLM4	17-Apr-24	Turb	NTU	0.1	0.1	0.4	0.51	24.2	0.78	TRUE
LLO	22-Apr-24	TSS	mg/L	1	1	<1.0	1.6	46.2	0.62	TRUE
MQL1	24-Apr-24	Cd-D	mg/L	0.00001	0.00001	0.000016	<0.000010	46.2	1.6	TRUE
MQL1	24-Apr-24	Mn-D	mg/L	0.001	0.001	0.0024	0.0018	28.6	1.33	TRUE
MQL1	24-Apr-24	P-T	mg/L	0.003	0.003	<0.0030	0.01	107.7	0.3	TRUE
MQL1	24-Apr-24	Turb	NTU	0.1	0.1	0.2	0.5	85.7	0.4	TRUE
LQL1	25-Apr-24	Cd-D	mg/L	0.00001	0.00001	0.000022	<0.000010	75	2.2	TRUE
LQL1	25-Apr-24	Mn-D	mg/L	0.001	0.001	0.0019	0.0014	30.3	1.36	TRUE
SPCEFF	29-Apr-24	H2S	mg/L	0.002	0.002	0.057	0.073	24.6	0.78	TRUE
SPCEFF	29-Apr-24	S2-T	mg/L	0.0018	0.0018	0.053	0.069	26.2	0.77	TRUE
MQL4	1-May-24	Fe-D	mg/L	0.005	0.005	0.0187	0.0146	24.6	1.28	TRUE
MQL4	1-May-24	P-T	mg/L	0.003	0.003	0.0039	<0.0030	26.1	1.3	TRUE
PDSR	6-May-24	TSS	mg/L	1	1	1.2	1.6	28.6	0.75	TRUE
QU1410	14-May-24	Turb	NTU	0.1	0.1	22	29	27.5	0.76	TRUE
INF	27-May-24	H2S	mg/L	0.002	0.002	0.0036	<0.0020	57.1	1.8	TRUE
INF	27-May-24	S2-T	mg/L	0.0018	0.0018	0.0034	<0.0018	61.5	1.89	TRUE
SPD	10-Jun-24	TSS	mg/L	1	1	<1.0	1.6	46.2	0.62	TRUE

True RPD calculation: One or more of the results must be Five X's > than the Lab Mean Detection Limit (Lab MDL).
Results that are Not Calculated (NC) include unequal Lab MDL's or results that are less than 5X 's Lab MDL.

Table 46 Blanks 11 Page(s)

Field Blanks (FB), Trip Blanks (TB), Equipment Blanks (EB)							
Stn.Code 1	**Date**	**Parameter Code**	**Units**	**Lab MDL 1**	**Lab MDL 2**	**Result 1**	**Result 2**
EB1	10-Apr-24	Ag-T	mg/L	0.00002	0.00002	<0.000020	<0.000020
EB1	10-Apr-24	Alk-PP	mg/L	1	1	<1.0	<1.0
EB1	10-Apr-24	Alkalinity Total as CaCO3	mg/L	1	1	<1.0	<1.0
EB1	10-Apr-24	Al-T	mg/L	0.003	0.003	<0.0030	<0.0030
EB1	10-Apr-24	As-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB1	10-Apr-24	Ba-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB1	10-Apr-24	Be-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB1	10-Apr-24	B-T	mg/L	0.05	0.05	<0.050	<0.050
EB1	10-Apr-24	Ca-T	mg/L	0.05	0.05	<0.050	<0.050
EB1	10-Apr-24	Cd-T	mg/L	0.00001	0.00001	<0.000010	<0.000010
EB1	10-Apr-24	Cl-D	mg/L	1	1	<1.0	<1.0
EB1	10-Apr-24	Co-T	mg/L	0.0002	0.0002	<0.00020	<0.00020
EB1	10-Apr-24	Cr-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB1	10-Apr-24	Cu-T	mg/L	0.0005	0.0005	0.00096	0.00096
EB1	10-Apr-24	Fe-T	mg/L	0.01	0.01	<0.010	<0.010
EB1	10-Apr-24	Hardness (as CaCO3)	mg/L	0.5	0.5	<0.50	<0.50
EB1	10-Apr-24	K-T	mg/L	0.05	0.05	<0.050	<0.050
EB1	10-Apr-24	Li-T	mg/L	0.002	0.002	<0.0020	<0.0020
EB1	10-Apr-24	Mg-T	mg/L	0.05	0.05	<0.050	<0.050
EB1	10-Apr-24	Mn-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB1	10-Apr-24	Mo-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB1	10-Apr-24	Na-T	mg/L	0.05	0.05	<0.050	<0.050
EB1	10-Apr-24	Ni-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB1	10-Apr-24	Pb-T	mg/L	0.0002	0.0002	<0.00020	<0.00020
EB1	10-Apr-24	Sb-T	mg/L	0.0005	0.0005	<0.00050	<0.00050
EB1	10-Apr-24	Se-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB1	10-Apr-24	Si-T	mg/L	0.1	0.1	<0.10	<0.10
EB1	10-Apr-24	Sn-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB1	10-Apr-24	SO4-D	mg/L	1	1	<1.0	<1.0
EB1	10-Apr-24	Sr-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB1	10-Apr-24	S-T	mg/L	3	3	<3.0	<3.0
EB1	10-Apr-24	Ti-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB1	10-Apr-24	Tl-T	mg/L	0.00001	0.00001	<0.000010	<0.000010
EB1	10-Apr-24	Turb	NTU	0.1	0.1	<0.10	<0.10
EB1	10-Apr-24	U-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB1	10-Apr-24	V-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB1	10-Apr-24	Zn-T	mg/L	0.005	0.005	0.0180	0.0180
EB1	10-Apr-24	Zr-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB1	24-Apr-24	Ag-T	mg/L	0.00002	0.00002	<0.000020	<0.000020
EB1	24-Apr-24	Alk-PP	mg/L	1	1	<1.0	<1.0
EB1	24-Apr-24	Alkalinity Total as CaCO3	mg/L	1	1	<1.0	<1.0
EB1	24-Apr-24	Al-T	mg/L	0.003	0.003	<0.0030	<0.0030
EB1	24-Apr-24	As-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB1	24-Apr-24	Ba-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB1	24-Apr-24	Be-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB1	24-Apr-24	B-T	mg/L	0.05	0.05	<0.050	<0.050
EB1	24-Apr-24	Ca-T	mg/L	0.05	0.05	<0.050	<0.050
EB1	24-Apr-24	Cd-T	mg/L	0.00001	0.00001	<0.000010	<0.000010
EB1	24-Apr-24	Cl-D	mg/L	1	1	<1.0	<1.0
EB1	24-Apr-24	Co-T	mg/L	0.0002	0.0002	<0.00020	<0.00020
EB1	24-Apr-24	Cr-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB1	24-Apr-24	Cu-T	mg/L	0.0005	0.0005	<0.00050	<0.00050
EB1	24-Apr-24	Fe-T	mg/L	0.01	0.01	<0.010	<0.010
EB1	24-Apr-24	Hardness (as CaCO3)	mg/L	0.5	0.5	<0.50	<0.50
EB1	24-Apr-24	K-T	mg/L	0.05	0.05	<0.050	<0.050
EB1	24-Apr-24	Li-T	mg/L	0.002	0.002	<0.0020	<0.0020
EB1	24-Apr-24	Mg-T	mg/L	0.05	0.05	<0.050	<0.050

Table 46 Blanks 11 Page(s)

Field Blanks (FB), Trip Blanks (TB), Equipment Blanks (EB)							
Stn.Code 1	**Date**	**Parameter Code**	**Units**	**Lab MDL 1**	**Lab MDL 2**	**Result 1**	**Result 2**
EB1	24-Apr-24	Mn-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB1	24-Apr-24	Mo-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB1	24-Apr-24	Na-T	mg/L	0.05	0.05	<0.050	<0.050
EB1	24-Apr-24	Ni-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB1	24-Apr-24	Pb-T	mg/L	0.0002	0.0002	<0.00020	<0.00020
EB1	24-Apr-24	Sb-T	mg/L	0.0005	0.0005	<0.00050	<0.00050
EB1	24-Apr-24	Se-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB1	24-Apr-24	Si-T	mg/L	0.1	0.1	<0.10	<0.10
EB1	24-Apr-24	Sn-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB1	24-Apr-24	SO4-D	mg/L	1	1	<1.0	<1.0
EB1	24-Apr-24	Sr-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB1	24-Apr-24	S-T	mg/L	3	3	<3.0	<3.0
EB1	24-Apr-24	Ti-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB1	24-Apr-24	Tl-T	mg/L	0.00001	0.00001	<0.000010	<0.000010
EB1	24-Apr-24	Turb	NTU	0.1	0.1	<0.10	<0.10
EB1	24-Apr-24	U-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB1	24-Apr-24	V-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB1	24-Apr-24	Zn-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB1	24-Apr-24	Zr-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB1	1-May-24	Ag-T	mg/L	0.00002	0.00002	<0.000020	<0.000020
EB1	1-May-24	Al-T	mg/L	0.003	0.003	<0.0030	<0.0030
EB1	1-May-24	As-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB1	1-May-24	Ba-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB1	1-May-24	Be-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB1	1-May-24	B-T	mg/L	0.05	0.05	<0.050	<0.050
EB1	1-May-24	Ca-T	mg/L	0.05	0.05	<0.050	<0.050
EB1	1-May-24	Cd-T	mg/L	0.00001	0.00001	<0.000010	<0.000010
EB1	1-May-24	Cl-D	mg/L	1	1	<1.0	<1.0
EB1	1-May-24	Co-T	mg/L	0.0002	0.0002	<0.00020	<0.00020
EB1	1-May-24	Cr-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB1	1-May-24	Cu-T	mg/L	0.0005	0.0005	<0.00050	<0.00050
EB1	1-May-24	Fe-T	mg/L	0.01	0.01	<0.010	<0.010
EB1	1-May-24	Hardness (as CaCO3)	mg/L	0.5	0.5	<0.50	<0.50
EB1	1-May-24	K-T	mg/L	0.05	0.05	<0.050	<0.050
EB1	1-May-24	Li-T	mg/L	0.002	0.002	<0.0020	<0.0020
EB1	1-May-24	Mg-T	mg/L	0.05	0.05	<0.050	<0.050
EB1	1-May-24	Mn-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB1	1-May-24	Mo-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB1	1-May-24	Na-T	mg/L	0.05	0.05	<0.050	<0.050
EB1	1-May-24	Ni-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB1	1-May-24	Pb-T	mg/L	0.0002	0.0002	<0.00020	<0.00020
EB1	1-May-24	Sb-T	mg/L	0.0005	0.0005	<0.00050	<0.00050
EB1	1-May-24	Se-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB1	1-May-24	Si-T	mg/L	0.1	0.1	<0.10	<0.10
EB1	1-May-24	Sn-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB1	1-May-24	SO4-D	mg/L	1	1	<1.0	<1.0
EB1	1-May-24	Sr-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB1	1-May-24	S-T	mg/L	3	3	<3.0	<3.0
EB1	1-May-24	Ti-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB1	1-May-24	Tl-T	mg/L	0.00001	0.00001	<0.000010	<0.000010
EB1	1-May-24	Turb	NTU	0.1	0.1	<0.10	<0.10
EB1	1-May-24	U-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB1	1-May-24	V-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB1	1-May-24	Zn-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB1	1-May-24	Zr-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB1	8-May-24	Ag-T	mg/L	0.00002	0.00002	<0.000020	<0.000020
EB1	8-May-24	Alk-PP	mg/L	1	1	<1.0	<1.0

Table 46 Blanks 11 Page(s)

Field Blanks (FB), Trip Blanks (TB), Equipment Blanks (EB)							
Stn.Code 1	**Date**	**Parameter Code**	**Units**	**Lab MDL 1**	**Lab MDL 2**	**Result 1**	**Result 2**
EB1	8-May-24	Alkalinity Total as CaCO3	mg/L	1	1	<1.0	<1.0
EB1	8-May-24	Al-T	mg/L	0.003	0.003	<0.0030	<0.0030
EB1	8-May-24	As-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB1	8-May-24	Ba-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB1	8-May-24	Be-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB1	8-May-24	B-T	mg/L	0.05	0.05	<0.050	<0.050
EB1	8-May-24	Ca-T	mg/L	0.05	0.05	<0.050	<0.050
EB1	8-May-24	Cd-T	mg/L	0.00001	0.00001	<0.000010	<0.000010
EB1	8-May-24	Cl-D	mg/L	1	1	<1.0	<1.0
EB1	8-May-24	Co-T	mg/L	0.0002	0.0002	<0.00020	<0.00020
EB1	8-May-24	Cr-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB1	8-May-24	Cu-T	mg/L	0.0005	0.0005	<0.00050	<0.00050
EB1	8-May-24	Fe-T	mg/L	0.01	0.01	<0.010	<0.010
EB1	8-May-24	Hardness (as CaCO3)	mg/L	0.5	0.5	<0.50	<0.50
EB1	8-May-24	K-T	mg/L	0.05	0.05	<0.050	<0.050
EB1	8-May-24	Li-T	mg/L	0.002	0.002	<0.0020	<0.0020
EB1	8-May-24	Mg-T	mg/L	0.05	0.05	<0.050	<0.050
EB1	8-May-24	Mn-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB1	8-May-24	Mo-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB1	8-May-24	Na-T	mg/L	0.05	0.05	<0.050	<0.050
EB1	8-May-24	Ni-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB1	8-May-24	Pb-T	mg/L	0.0002	0.0002	<0.00020	<0.00020
EB1	8-May-24	Sb-T	mg/L	0.0005	0.0005	<0.00050	<0.00050
EB1	8-May-24	Se-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB1	8-May-24	Si-T	mg/L	0.1	0.1	<0.10	<0.10
EB1	8-May-24	Sn-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB1	8-May-24	SO4-D	mg/L	1	1	<1.0	<1.0
EB1	8-May-24	Sr-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB1	8-May-24	S-T	mg/L	3	3	<3.0	<3.0
EB1	8-May-24	Ti-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB1	8-May-24	Tl-T	mg/L	0.00001	0.00001	<0.000010	<0.000010
EB1	8-May-24	Turb	NTU	0.1	0.1	0.12	0.12
EB1	8-May-24	U-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB1	8-May-24	V-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB1	8-May-24	Zn-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB1	8-May-24	Zr-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB2	10-Apr-24	Ag-T	mg/L	0.00002	0.00002	<0.000020	<0.000020
EB2	10-Apr-24	Alk-PP	mg/L	1	1	<1.0	<1.0
EB2	10-Apr-24	Alkalinity Total as CaCO3	mg/L	1	1	<1.0	<1.0
EB2	10-Apr-24	Al-T	mg/L	0.003	0.003	<0.0030	<0.0030
EB2	10-Apr-24	As-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB2	10-Apr-24	Ba-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB2	10-Apr-24	Be-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB2	10-Apr-24	B-T	mg/L	0.05	0.05	<0.050	<0.050
EB2	10-Apr-24	Ca-T	mg/L	0.05	0.05	<0.050	<0.050
EB2	10-Apr-24	Cd-T	mg/L	0.00001	0.00001	<0.000010	<0.000010
EB2	10-Apr-24	Cl-D	mg/L	1	1	<1.0	<1.0
EB2	10-Apr-24	Co-T	mg/L	0.0002	0.0002	<0.00020	<0.00020
EB2	10-Apr-24	Cr-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB2	10-Apr-24	Cu-T	mg/L	0.0005	0.0005	<0.00050	<0.00050
EB2	10-Apr-24	Fe-T	mg/L	0.01	0.01	<0.010	<0.010
EB2	10-Apr-24	Hardness (as CaCO3)	mg/L	0.5	0.5	<0.50	<0.50
EB2	10-Apr-24	K-T	mg/L	0.05	0.05	<0.050	<0.050
EB2	10-Apr-24	Li-T	mg/L	0.002	0.002	<0.0020	<0.0020
EB2	10-Apr-24	Mg-T	mg/L	0.05	0.05	<0.050	<0.050
EB2	10-Apr-24	Mn-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB2	10-Apr-24	Mo-T	mg/L	0.001	0.001	<0.0010	<0.0010

Highlighted cells are greater than detection limits.

Table 46 Blanks 11 Page(s)

Field Blanks (FB), Trip Blanks (TB), Equipment Blanks (EB)							
Stn.Code 1	**Date**	**Parameter Code**	**Units**	**Lab MDL 1**	**Lab MDL 2**	**Result 1**	**Result 2**
EB2	10-Apr-24	Na-T	mg/L	0.05	0.05	<0.050	<0.050
EB2	10-Apr-24	Ni-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB2	10-Apr-24	Pb-T	mg/L	0.0002	0.0002	<0.00020	<0.00020
EB2	10-Apr-24	Sb-T	mg/L	0.0005	0.0005	<0.00050	<0.00050
EB2	10-Apr-24	Se-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB2	10-Apr-24	Si-T	mg/L	0.1	0.1	<0.10	<0.10
EB2	10-Apr-24	Sn-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB2	10-Apr-24	SO4-D	mg/L	1	1	<1.0	<1.0
EB2	10-Apr-24	Sr-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB2	10-Apr-24	S-T	mg/L	3	3	<3.0	<3.0
EB2	10-Apr-24	Ti-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB2	10-Apr-24	Tl-T	mg/L	0.00001	0.00001	<0.000010	<0.000010
EB2	10-Apr-24	Turb	NTU	0.1	0.1	<0.10	<0.10
EB2	10-Apr-24	U-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB2	10-Apr-24	V-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB2	10-Apr-24	Zn-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB2	10-Apr-24	Zr-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB2	24-Apr-24	Ag-T	mg/L	0.00002	0.00002	<0.000020	<0.000020
EB2	24-Apr-24	Alk-PP	mg/L	1	1	<1.0	<1.0
EB2	24-Apr-24	Alkalinity Total as CaCO3	mg/L	1	1	<1.0	<1.0
EB2	24-Apr-24	Al-T	mg/L	0.003	0.003	<0.0030	<0.0030
EB2	24-Apr-24	As-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB2	24-Apr-24	Ba-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB2	24-Apr-24	Be-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB2	24-Apr-24	B-T	mg/L	0.05	0.05	<0.050	<0.050
EB2	24-Apr-24	Ca-T	mg/L	0.05	0.05	0.151	0.151
EB2	24-Apr-24	Cd-T	mg/L	0.00001	0.00001	<0.000010	<0.000010
EB2	24-Apr-24	Cl-D	mg/L	1	1	<1.0	<1.0
EB2	24-Apr-24	Co-T	mg/L	0.0002	0.0002	<0.00020	<0.00020
EB2	24-Apr-24	Cr-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB2	24-Apr-24	Cu-T	mg/L	0.0005	0.0005	<0.00050	<0.00050
EB2	24-Apr-24	Fe-T	mg/L	0.01	0.01	<0.010	<0.010
EB2	24-Apr-24	Hardness (as CaCO3)	mg/L	0.5	0.5	<0.50	<0.50
EB2	24-Apr-24	K-T	mg/L	0.05	0.05	<0.050	<0.050
EB2	24-Apr-24	Li-T	mg/L	0.002	0.002	<0.0020	<0.0020
EB2	24-Apr-24	Mg-T	mg/L	0.05	0.05	<0.050	<0.050
EB2	24-Apr-24	Mn-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB2	24-Apr-24	Mo-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB2	24-Apr-24	Na-T	mg/L	0.05	0.05	<0.050	<0.050
EB2	24-Apr-24	Ni-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB2	24-Apr-24	Pb-T	mg/L	0.0002	0.0002	<0.00020	<0.00020
EB2	24-Apr-24	Sb-T	mg/L	0.0005	0.0005	<0.00050	<0.00050
EB2	24-Apr-24	Se-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB2	24-Apr-24	Si-T	mg/L	0.1	0.1	<0.10	<0.10
EB2	24-Apr-24	Sn-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB2	24-Apr-24	SO4-D	mg/L	1	1	<1.0	<1.0
EB2	24-Apr-24	Sr-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB2	24-Apr-24	S-T	mg/L	3	3	<3.0	<3.0
EB2	24-Apr-24	Ti-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB2	24-Apr-24	Tl-T	mg/L	0.00001	0.00001	<0.000010	<0.000010
EB2	24-Apr-24	Turb	NTU	0.1	0.1	<0.10	<0.10
EB2	24-Apr-24	U-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB2	24-Apr-24	V-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB2	24-Apr-24	Zn-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB2	24-Apr-24	Zr-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB2	1-May-24	Ag-T	mg/L	0.00002	0.00002	<0.000020	<0.000020
EB2	1-May-24	Alk-PP	mg/L	1	1	<1.0	<1.0

Highlighted cells are greater than detection limits.

Table 46 Blanks 11 Page(s)

Field Blanks (FB), Trip Blanks (TB), Equipment Blanks (EB)							
Stn.Code 1	**Date**	**Parameter Code**	**Units**	**Lab MDL 1**	**Lab MDL 2**	**Result 1**	**Result 2**
EB2	1-May-24	Alkalinity Total as CaCO3	mg/L	1	1	<1.0	<1.0
EB2	1-May-24	Al-T	mg/L	0.003	0.003	<0.0030	<0.0030
EB2	1-May-24	As-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB2	1-May-24	Ba-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB2	1-May-24	Be-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB2	1-May-24	B-T	mg/L	0.05	0.05	<0.050	<0.050
EB2	1-May-24	Ca-T	mg/L	0.05	0.05	<0.050	<0.050
EB2	1-May-24	Cd-T	mg/L	0.00001	0.00001	<0.000010	<0.000010
EB2	1-May-24	Cl-D	mg/L	1	1	<1.0	<1.0
EB2	1-May-24	Co-T	mg/L	0.0002	0.0002	<0.00020	<0.00020
EB2	1-May-24	Cr-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB2	1-May-24	Cu-T	mg/L	0.0005	0.0005	<0.00050	<0.00050
EB2	1-May-24	Fe-T	mg/L	0.01	0.01	<0.010	<0.010
EB2	1-May-24	Hardness (as CaCO3)	mg/L	0.5	0.5	<0.50	<0.50
EB2	1-May-24	K-T	mg/L	0.05	0.05	<0.050	<0.050
EB2	1-May-24	Li-T	mg/L	0.002	0.002	<0.0020	<0.0020
EB2	1-May-24	Mg-T	mg/L	0.05	0.05	<0.050	<0.050
EB2	1-May-24	Mn-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB2	1-May-24	Mo-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB2	1-May-24	Na-T	mg/L	0.05	0.05	<0.050	<0.050
EB2	1-May-24	Ni-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB2	1-May-24	Pb-T	mg/L	0.0002	0.0002	<0.00020	<0.00020
EB2	1-May-24	Sb-T	mg/L	0.0005	0.0005	<0.00050	<0.00050
EB2	1-May-24	Se-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB2	1-May-24	Si-T	mg/L	0.1	0.1	<0.10	<0.10
EB2	1-May-24	Sn-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB2	1-May-24	SO4-D	mg/L	1	1	<1.0	<1.0
EB2	1-May-24	Sr-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB2	1-May-24	S-T	mg/L	3	3	<3.0	<3.0
EB2	1-May-24	Ti-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB2	1-May-24	Tl-T	mg/L	0.00001	0.00001	<0.000010	<0.000010
EB2	1-May-24	Turb	NTU	0.1	0.1	0.25	0.25
EB2	1-May-24	U-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB2	1-May-24	V-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB2	1-May-24	Zn-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB2	1-May-24	Zr-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB2	8-May-24	Ag-T	mg/L	0.00002	0.00002	<0.000020	<0.000020
EB2	8-May-24	Alk-PP	mg/L	1	1	<1.0	<1.0
EB2	8-May-24	Alkalinity Total as CaCO3	mg/L	1	1	<1.0	<1.0
EB2	8-May-24	Al-T	mg/L	0.003	0.003	<0.0030	<0.0030
EB2	8-May-24	As-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB2	8-May-24	Ba-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB2	8-May-24	Be-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB2	8-May-24	B-T	mg/L	0.05	0.05	<0.050	<0.050
EB2	8-May-24	Ca-T	mg/L	0.05	0.05	<0.050	<0.050
EB2	8-May-24	Cd-T	mg/L	0.00001	0.00001	<0.000010	<0.000010
EB2	8-May-24	Cl-D	mg/L	1	1	<1.0	<1.0
EB2	8-May-24	Co-T	mg/L	0.0002	0.0002	<0.00020	<0.00020
EB2	8-May-24	Cr-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB2	8-May-24	Cu-T	mg/L	0.0005	0.0005	<0.00050	<0.00050
EB2	8-May-24	Fe-T	mg/L	0.01	0.01	<0.010	<0.010
EB2	8-May-24	Hardness (as CaCO3)	mg/L	0.5	0.5	<0.50	<0.50
EB2	8-May-24	K-T	mg/L	0.05	0.05	<0.050	<0.050
EB2	8-May-24	Li-T	mg/L	0.002	0.002	<0.0020	<0.0020
EB2	8-May-24	Mg-T	mg/L	0.05	0.05	<0.050	<0.050
EB2	8-May-24	Mn-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB2	8-May-24	Mo-T	mg/L	0.001	0.001	<0.0010	<0.0010

Highlighted cells are greater than detection limits.

Table 46 Blanks 11 Page(s)

Field Blanks (FB), Trip Blanks (TB), Equipment Blanks (EB)							
Stn.Code 1	**Date**	**Parameter Code**	**Units**	**Lab MDL 1**	**Lab MDL 2**	**Result 1**	**Result 2**
EB2	8-May-24	Na-T	mg/L	0.05	0.05	<0.050	<0.050
EB2	8-May-24	Ni-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB2	8-May-24	Pb-T	mg/L	0.0002	0.0002	<0.00020	<0.00020
EB2	8-May-24	Sb-T	mg/L	0.0005	0.0005	<0.00050	<0.00050
EB2	8-May-24	Se-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB2	8-May-24	Si-T	mg/L	0.1	0.1	<0.10	<0.10
EB2	8-May-24	Sn-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB2	8-May-24	SO4-D	mg/L	1	1	<1.0	<1.0
EB2	8-May-24	Sr-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB2	8-May-24	S-T	mg/L	3	3	<3.0	<3.0
EB2	8-May-24	Ti-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB2	8-May-24	Tl-T	mg/L	0.00001	0.00001	<0.000010	<0.000010
EB2	8-May-24	Turb	NTU	0.1	0.1	0.21	0.21
EB2	8-May-24	U-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB2	8-May-24	V-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB2	8-May-24	Zn-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB2	8-May-24	Zr-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB3	10-Apr-24	Ag-T	mg/L	0.00002	0.00002	<0.000020	<0.000020
EB3	10-Apr-24	Alk-PP	mg/L	1	1	<1.0	<1.0
EB3	10-Apr-24	Alkalinity Total as CaCO3	mg/L	1	1	<1.0	<1.0
EB3	10-Apr-24	Al-T	mg/L	0.003	0.003	<0.0030	<0.0030
EB3	10-Apr-24	As-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB3	10-Apr-24	Ba-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB3	10-Apr-24	Be-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB3	10-Apr-24	B-T	mg/L	0.05	0.05	<0.050	<0.050
EB3	10-Apr-24	Ca-T	mg/L	0.05	0.05	<0.050	<0.050
EB3	10-Apr-24	Cd-T	mg/L	0.00001	0.00001	<0.000010	<0.000010
EB3	10-Apr-24	Cl-D	mg/L	1	1	<1.0	<1.0
EB3	10-Apr-24	Co-T	mg/L	0.0002	0.0002	<0.00020	<0.00020
EB3	10-Apr-24	Cr-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB3	10-Apr-24	Cu-T	mg/L	0.0005	0.0005	<0.00050	<0.00050
EB3	10-Apr-24	Fe-T	mg/L	0.01	0.01	<0.010	<0.010
EB3	10-Apr-24	Hardness (as CaCO3)	mg/L	0.5	0.5	<0.50	<0.50
EB3	10-Apr-24	K-T	mg/L	0.05	0.05	<0.050	<0.050
EB3	10-Apr-24	Li-T	mg/L	0.002	0.002	<0.0020	<0.0020
EB3	10-Apr-24	Mg-T	mg/L	0.05	0.05	<0.050	<0.050
EB3	10-Apr-24	Mn-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB3	10-Apr-24	Mo-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB3	10-Apr-24	Na-T	mg/L	0.05	0.05	<0.050	<0.050
EB3	10-Apr-24	Ni-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB3	10-Apr-24	Pb-T	mg/L	0.0002	0.0002	<0.00020	<0.00020
EB3	10-Apr-24	Sb-T	mg/L	0.0005	0.0005	<0.00050	<0.00050
EB3	10-Apr-24	Se-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB3	10-Apr-24	Si-T	mg/L	0.1	0.1	<0.10	<0.10
EB3	10-Apr-24	Sn-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB3	10-Apr-24	SO4-D	mg/L	1	1	<1.0	<1.0
EB3	10-Apr-24	Sr-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB3	10-Apr-24	S-T	mg/L	3	3	<3.0	<3.0
EB3	10-Apr-24	Ti-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB3	10-Apr-24	Tl-T	mg/L	0.00001	0.00001	<0.000010	<0.000010
EB3	10-Apr-24	Turb	NTU	0.1	0.1	0.12	0.12
EB3	10-Apr-24	U-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB3	10-Apr-24	V-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB3	10-Apr-24	Zn-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB3	10-Apr-24	Zr-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB3	24-Apr-24	Ag-T	mg/L	0.00002	0.00002	<0.000020	<0.000020
EB3	24-Apr-24	Alk-PP	mg/L	1	1	<1.0	<1.0

Highlighted cells are greater than detection limits.

Table 46 Blanks 11 Page(s)

Field Blanks (FB), Trip Blanks (TB), Equipment Blanks (EB)							
Stn.Code 1	**Date**	**Parameter Code**	**Units**	**Lab MDL 1**	**Lab MDL 2**	**Result 1**	**Result 2**
EB3	24-Apr-24	Alkalinity Total as CaCO3	mg/L	1	1	<1.0	<1.0
EB3	24-Apr-24	Al-T	mg/L	0.003	0.003	<0.0030	<0.0030
EB3	24-Apr-24	As-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB3	24-Apr-24	Ba-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB3	24-Apr-24	Be-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB3	24-Apr-24	B-T	mg/L	0.05	0.05	<0.050	<0.050
EB3	24-Apr-24	Ca-T	mg/L	0.05	0.05	<0.050	<0.050
EB3	24-Apr-24	Cd-T	mg/L	0.00001	0.00001	<0.000010	<0.000010
EB3	24-Apr-24	Cl-D	mg/L	1	1	<1.0	<1.0
EB3	24-Apr-24	Co-T	mg/L	0.0002	0.0002	<0.00020	<0.00020
EB3	24-Apr-24	Cr-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB3	24-Apr-24	Cu-T	mg/L	0.0005	0.0005	<0.00050	<0.00050
EB3	24-Apr-24	Fe-T	mg/L	0.01	0.01	<0.010	<0.010
EB3	24-Apr-24	Hardness (as CaCO3)	mg/L	0.5	0.5	<0.50	<0.50
EB3	24-Apr-24	K-T	mg/L	0.05	0.05	<0.050	<0.050
EB3	24-Apr-24	Li-T	mg/L	0.002	0.002	<0.0020	<0.0020
EB3	24-Apr-24	Mg-T	mg/L	0.05	0.05	<0.050	<0.050
EB3	24-Apr-24	Mn-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB3	24-Apr-24	Mo-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB3	24-Apr-24	Na-T	mg/L	0.05	0.05	<0.050	<0.050
EB3	24-Apr-24	Ni-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB3	24-Apr-24	Pb-T	mg/L	0.0002	0.0002	<0.00020	<0.00020
EB3	24-Apr-24	Sb-T	mg/L	0.0005	0.0005	<0.00050	<0.00050
EB3	24-Apr-24	Se-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB3	24-Apr-24	Si-T	mg/L	0.1	0.1	<0.10	<0.10
EB3	24-Apr-24	Sn-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB3	24-Apr-24	SO4-D	mg/L	1	1	<1.0	<1.0
EB3	24-Apr-24	Sr-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB3	24-Apr-24	S-T	mg/L	3	3	<3.0	<3.0
EB3	24-Apr-24	Ti-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB3	24-Apr-24	Tl-T	mg/L	0.00001	0.00001	<0.000010	<0.000010
EB3	24-Apr-24	Turb	NTU	0.1	0.1	<0.10	<0.10
EB3	24-Apr-24	U-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB3	24-Apr-24	V-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB3	24-Apr-24	Zn-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB3	24-Apr-24	Zr-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB3	1-May-24	Ag-T	mg/L	0.00002	0.00002	<0.000020	<0.000020
EB3	1-May-24	Alk-PP	mg/L	1	1	<1.0	<1.0
EB3	1-May-24	Alkalinity Total as CaCO3	mg/L	1	1	<1.0	<1.0
EB3	1-May-24	Al-T	mg/L	0.003	0.003	<0.0030	<0.0030
EB3	1-May-24	As-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB3	1-May-24	Ba-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB3	1-May-24	Be-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB3	1-May-24	B-T	mg/L	0.05	0.05	<0.050	<0.050
EB3	1-May-24	Ca-T	mg/L	0.05	0.05	0.055	0.055
EB3	1-May-24	Cd-T	mg/L	0.00001	0.00001	<0.000010	<0.000010
EB3	1-May-24	Cl-D	mg/L	1	1	<1.0	<1.0
EB3	1-May-24	Co-T	mg/L	0.0002	0.0002	<0.00020	<0.00020
EB3	1-May-24	Cr-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB3	1-May-24	Cu-T	mg/L	0.0005	0.0005	<0.00050	<0.00050
EB3	1-May-24	Fe-T	mg/L	0.01	0.01	<0.010	<0.010
EB3	1-May-24	Hardness (as CaCO3)	mg/L	0.5	0.5	<0.50	<0.50
EB3	1-May-24	K-T	mg/L	0.05	0.05	<0.050	<0.050
EB3	1-May-24	Li-T	mg/L	0.002	0.002	<0.0020	<0.0020
EB3	1-May-24	Mg-T	mg/L	0.05	0.05	<0.050	<0.050
EB3	1-May-24	Mn-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB3	1-May-24	Mo-T	mg/L	0.001	0.001	<0.0010	<0.0010

Highlighted cells are greater than detection limits.

Table 46 Blanks 11 Page(s)

Field Blanks (FB), Trip Blanks (TB), Equipment Blanks (EB)							
Stn.Code 1	**Date**	**Parameter Code**	**Units**	**Lab MDL 1**	**Lab MDL 2**	**Result 1**	**Result 2**
EB3	1-May-24	Na-T	mg/L	0.05	0.05	<0.050	<0.050
EB3	1-May-24	Ni-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB3	1-May-24	Pb-T	mg/L	0.0002	0.0002	<0.00020	<0.00020
EB3	1-May-24	Sb-T	mg/L	0.0005	0.0005	<0.00050	<0.00050
EB3	1-May-24	Se-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB3	1-May-24	Si-T	mg/L	0.1	0.1	<0.10	<0.10
EB3	1-May-24	Sn-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB3	1-May-24	SO4-D	mg/L	1	1	<1.0	<1.0
EB3	1-May-24	Sr-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB3	1-May-24	S-T	mg/L	3	3	<3.0	<3.0
EB3	1-May-24	Ti-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB3	1-May-24	Tl-T	mg/L	0.00001	0.00001	<0.000010	<0.000010
EB3	1-May-24	Turb	NTU	0.1	0.1	<0.10	<0.10
EB3	1-May-24	U-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB3	1-May-24	V-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB3	1-May-24	Zn-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB3	1-May-24	Zr-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB3	8-May-24	Ag-T	mg/L	0.00002	0.00002	<0.000020	<0.000020
EB3	8-May-24	Alk-PP	mg/L	1	1	<1.0	<1.0
EB3	8-May-24	Alkalinity Total as CaCO3	mg/L	1	1	1.8	1.8
EB3	8-May-24	Al-T	mg/L	0.003	0.003	<0.0030	<0.0030
EB3	8-May-24	As-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB3	8-May-24	Ba-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB3	8-May-24	Be-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB3	8-May-24	B-T	mg/L	0.05	0.05	<0.050	<0.050
EB3	8-May-24	Ca-T	mg/L	0.05	0.05	<0.050	<0.050
EB3	8-May-24	Cd-T	mg/L	0.00001	0.00001	<0.000010	<0.000010
EB3	8-May-24	Cl-D	mg/L	1	1	<1.0	<1.0
EB3	8-May-24	Co-T	mg/L	0.0002	0.0002	<0.00020	<0.00020
EB3	8-May-24	Cr-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB3	8-May-24	Cu-T	mg/L	0.0005	0.0005	<0.00050	<0.00050
EB3	8-May-24	Fe-T	mg/L	0.01	0.01	<0.010	<0.010
EB3	8-May-24	Hardness (as CaCO3)	mg/L	0.5	0.5	<0.50	<0.50
EB3	8-May-24	K-T	mg/L	0.05	0.05	<0.050	<0.050
EB3	8-May-24	Li-T	mg/L	0.002	0.002	<0.0020	<0.0020
EB3	8-May-24	Mg-T	mg/L	0.05	0.05	<0.050	<0.050
EB3	8-May-24	Mn-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB3	8-May-24	Mo-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB3	8-May-24	Na-T	mg/L	0.05	0.05	<0.050	<0.050
EB3	8-May-24	Ni-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB3	8-May-24	Pb-T	mg/L	0.0002	0.0002	<0.00020	<0.00020
EB3	8-May-24	Sb-T	mg/L	0.0005	0.0005	<0.00050	<0.00050
EB3	8-May-24	Se-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB3	8-May-24	Si-T	mg/L	0.1	0.1	<0.10	<0.10
EB3	8-May-24	Sn-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB3	8-May-24	SO4-D	mg/L	1	1	<1.0	<1.0
EB3	8-May-24	Sr-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB3	8-May-24	S-T	mg/L	3	3	<3.0	<3.0
EB3	8-May-24	Ti-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB3	8-May-24	Tl-T	mg/L	0.00001	0.00001	<0.000010	<0.000010
EB3	8-May-24	Turb	NTU	0.1	0.1	0.21	0.21
EB3	8-May-24	U-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB3	8-May-24	V-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB3	8-May-24	Zn-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB3	8-May-24	Zr-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB4	10-Apr-24	Ag-T	mg/L	0.00002	0.00002	<0.000020	<0.000020
EB4	10-Apr-24	Alk-PP	mg/L	1	1	<1.0	<1.0

Highlighted cells are greater than detection limits.

Table 46 Blanks 11 Page(s)

Field Blanks (FB), Trip Blanks (TB), Equipment Blanks (EB)							
Stn.Code 1	**Date**	**Parameter Code**	**Units**	**Lab MDL 1**	**Lab MDL 2**	**Result 1**	**Result 2**
EB4	10-Apr-24	Alkalinity Total as CaCO3	mg/L	1	1	<1.0	<1.0
EB4	10-Apr-24	Al-T	mg/L	0.003	0.003	0.0040	0.0040
EB4	10-Apr-24	As-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB4	10-Apr-24	Ba-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB4	10-Apr-24	Be-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB4	10-Apr-24	B-T	mg/L	0.05	0.05	<0.050	<0.050
EB4	10-Apr-24	Ca-T	mg/L	0.05	0.05	<0.050	<0.050
EB4	10-Apr-24	Cd-T	mg/L	0.00001	0.00001	<0.000010	<0.000010
EB4	10-Apr-24	Cl-D	mg/L	1	1	<1.0	<1.0
EB4	10-Apr-24	Co-T	mg/L	0.0002	0.0002	<0.00020	<0.00020
EB4	10-Apr-24	Cr-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB4	10-Apr-24	Cu-T	mg/L	0.0005	0.0005	<0.00050	<0.00050
EB4	10-Apr-24	Fe-T	mg/L	0.01	0.01	<0.010	<0.010
EB4	10-Apr-24	Hardness (as CaCO3)	mg/L	0.5	0.5	<0.50	<0.50
EB4	10-Apr-24	K-T	mg/L	0.05	0.05	<0.050	<0.050
EB4	10-Apr-24	Li-T	mg/L	0.002	0.002	<0.0020	<0.0020
EB4	10-Apr-24	Mg-T	mg/L	0.05	0.05	<0.050	<0.050
EB4	10-Apr-24	Mn-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB4	10-Apr-24	Mo-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB4	10-Apr-24	Na-T	mg/L	0.05	0.05	<0.050	<0.050
EB4	10-Apr-24	Ni-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB4	10-Apr-24	Pb-T	mg/L	0.0002	0.0002	<0.00020	<0.00020
EB4	10-Apr-24	Sb-T	mg/L	0.0005	0.0005	<0.00050	<0.00050
EB4	10-Apr-24	Se-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB4	10-Apr-24	Si-T	mg/L	0.1	0.1	<0.10	<0.10
EB4	10-Apr-24	Sn-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB4	10-Apr-24	SO4-D	mg/L	1	1	<1.0	<1.0
EB4	10-Apr-24	Sr-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB4	10-Apr-24	S-T	mg/L	3	3	<3.0	<3.0
EB4	10-Apr-24	Ti-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB4	10-Apr-24	Tl-T	mg/L	0.00001	0.00001	<0.000010	<0.000010
EB4	10-Apr-24	Turb	NTU	0.1	0.1	0.20	0.20
EB4	10-Apr-24	U-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB4	10-Apr-24	V-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB4	10-Apr-24	Zn-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB4	10-Apr-24	Zr-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB4	17-Apr-24	Ag-T	mg/L	0.00002	0.00002	<0.000020	<0.000020
EB4	17-Apr-24	Alk-PP	mg/L	1	1	<1.0	<1.0
EB4	17-Apr-24	Alkalinity Total as CaCO3	mg/L	1	1	<1.0	<1.0
EB4	17-Apr-24	Al-T	mg/L	0.003	0.003	<0.0030	<0.0030
EB4	17-Apr-24	As-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB4	17-Apr-24	Ba-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB4	17-Apr-24	Be-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB4	17-Apr-24	B-T	mg/L	0.05	0.05	<0.050	<0.050
EB4	17-Apr-24	Ca-T	mg/L	0.05	0.05	<0.050	<0.050
EB4	17-Apr-24	Cd-T	mg/L	0.00001	0.00001	<0.000010	<0.000010
EB4	17-Apr-24	Cl-D	mg/L	1	1	<1.0	<1.0
EB4	17-Apr-24	Co-T	mg/L	0.0002	0.0002	<0.00020	<0.00020
EB4	17-Apr-24	Cr-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB4	17-Apr-24	Cu-T	mg/L	0.0005	0.0005	<0.00050	<0.00050
EB4	17-Apr-24	Fe-T	mg/L	0.01	0.01	<0.010	<0.010
EB4	17-Apr-24	Hardness (as CaCO3)	mg/L	0.5	0.5	<0.50	<0.50
EB4	17-Apr-24	K-T	mg/L	0.05	0.05	<0.050	<0.050
EB4	17-Apr-24	Li-T	mg/L	0.002	0.002	<0.0020	<0.0020
EB4	17-Apr-24	Mg-T	mg/L	0.05	0.05	<0.050	<0.050
EB4	17-Apr-24	Mn-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB4	17-Apr-24	Mo-T	mg/L	0.001	0.001	<0.0010	<0.0010

Highlighted cells are greater than detection limits.

Table 46 Blanks 11 Page(s)

Field Blanks (FB), Trip Blanks (TB), Equipment Blanks (EB)							
Stn.Code 1	**Date**	**Parameter Code**	**Units**	**Lab MDL 1**	**Lab MDL 2**	**Result 1**	**Result 2**
EB4	17-Apr-24	Na-T	mg/L	0.05	0.05	<0.050	<0.050
EB4	17-Apr-24	Ni-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB4	17-Apr-24	Pb-T	mg/L	0.0002	0.0002	<0.00020	<0.00020
EB4	17-Apr-24	Sb-T	mg/L	0.0005	0.0005	<0.00050	<0.00050
EB4	17-Apr-24	Se-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB4	17-Apr-24	Si-T	mg/L	0.1	0.1	<0.10	<0.10
EB4	17-Apr-24	Sn-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB4	17-Apr-24	SO4-D	mg/L	1	1	<1.0	<1.0
EB4	17-Apr-24	Sr-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB4	17-Apr-24	S-T	mg/L	3	3	<3.0	<3.0
EB4	17-Apr-24	Ti-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB4	17-Apr-24	Tl-T	mg/L	0.00001	0.00001	<0.000010	<0.000010
EB4	17-Apr-24	Turb	NTU	0.1	0.1	0.14	0.14
EB4	17-Apr-24	U-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB4	17-Apr-24	V-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB4	17-Apr-24	Zn-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB4	17-Apr-24	Zr-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB4	2-May-24	Ag-T	mg/L	0.00002	0.00002	<0.000020	<0.000020
EB4	2-May-24	Alk-PP	mg/L	1	1	<1.0	<1.0
EB4	2-May-24	Alkalinity Total as CaCO3	mg/L	1	1	<1.0	<1.0
EB4	2-May-24	Al-T	mg/L	0.003	0.003	<0.0030	<0.0030
EB4	2-May-24	As-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB4	2-May-24	Ba-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB4	2-May-24	Be-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB4	2-May-24	B-T	mg/L	0.05	0.05	<0.050	<0.050
EB4	2-May-24	Ca-T	mg/L	0.05	0.05	<0.050	<0.050
EB4	2-May-24	Cd-T	mg/L	0.00001	0.00001	<0.000010	<0.000010
EB4	2-May-24	Cl-D	mg/L	1	1	<1.0	<1.0
EB4	2-May-24	Co-T	mg/L	0.0002	0.0002	<0.00020	<0.00020
EB4	2-May-24	Cr-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB4	2-May-24	Cu-T	mg/L	0.0005	0.0005	<0.00050	<0.00050
EB4	2-May-24	Fe-T	mg/L	0.01	0.01	<0.010	<0.010
EB4	2-May-24	Hardness (as CaCO3)	mg/L	0.5	0.5	<0.50	<0.50
EB4	2-May-24	K-T	mg/L	0.05	0.05	<0.050	<0.050
EB4	2-May-24	Li-T	mg/L	0.002	0.002	<0.0020	<0.0020
EB4	2-May-24	Mg-T	mg/L	0.05	0.05	<0.050	<0.050
EB4	2-May-24	Mn-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB4	2-May-24	Mo-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB4	2-May-24	Na-T	mg/L	0.05	0.05	<0.050	<0.050
EB4	2-May-24	Ni-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB4	2-May-24	Pb-T	mg/L	0.0002	0.0002	<0.00020	<0.00020
EB4	2-May-24	Sb-T	mg/L	0.0005	0.0005	<0.00050	<0.00050
EB4	2-May-24	Se-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB4	2-May-24	Si-T	mg/L	0.1	0.1	<0.10	<0.10
EB4	2-May-24	Sn-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB4	2-May-24	SO4-D	mg/L	1	1	<1.0	<1.0
EB4	2-May-24	Sr-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB4	2-May-24	S-T	mg/L	3	3	<3.0	<3.0
EB4	2-May-24	Ti-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB4	2-May-24	Tl-T	mg/L	0.00001	0.00001	<0.000010	<0.000010
EB4	2-May-24	Turb	NTU	0.1	0.1	<0.10	<0.10
EB4	2-May-24	U-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB4	2-May-24	V-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB4	2-May-24	Zn-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB4	2-May-24	Zr-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB4	8-May-24	Ag-T	mg/L	0.00002	0.00002	<0.000020	<0.000020
EB4	8-May-24	Alk-PP	mg/L	1	1	<1.0	<1.0

Highlighted cells are greater than detection limits.

Table 46 Blanks 11 Page(s)

Field Blanks (FB), Trip Blanks (TB), Equipment Blanks (EB)							
Stn.Code 1	**Date**	**Parameter Code**	**Units**	**Lab MDL 1**	**Lab MDL 2**	**Result 1**	**Result 2**
EB4	8-May-24	Alkalinity Total as CaCO3	mg/L	1	1	<1.0	<1.0
EB4	8-May-24	Al-T	mg/L	0.003	0.003	<0.0030	<0.0030
EB4	8-May-24	As-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB4	8-May-24	Ba-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB4	8-May-24	Be-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB4	8-May-24	B-T	mg/L	0.05	0.05	<0.050	<0.050
EB4	8-May-24	Ca-T	mg/L	0.05	0.05	<0.050	<0.050
EB4	8-May-24	Cd-T	mg/L	0.00001	0.00001	<0.000010	<0.000010
EB4	8-May-24	Cl-D	mg/L	1	1	<1.0	<1.0
EB4	8-May-24	Co-T	mg/L	0.0002	0.0002	<0.00020	<0.00020
EB4	8-May-24	Cr-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB4	8-May-24	Cu-T	mg/L	0.0005	0.0005	<0.00050	<0.00050
EB4	8-May-24	Fe-T	mg/L	0.01	0.01	<0.010	<0.010
EB4	8-May-24	Hardness (as CaCO3)	mg/L	0.5	0.5	<0.50	<0.50
EB4	8-May-24	K-T	mg/L	0.05	0.05	<0.050	<0.050
EB4	8-May-24	Li-T	mg/L	0.002	0.002	<0.0020	<0.0020
EB4	8-May-24	Mg-T	mg/L	0.05	0.05	<0.050	<0.050
EB4	8-May-24	Mn-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB4	8-May-24	Mo-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB4	8-May-24	Na-T	mg/L	0.05	0.05	<0.050	<0.050
EB4	8-May-24	Ni-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB4	8-May-24	Pb-T	mg/L	0.0002	0.0002	<0.00020	<0.00020
EB4	8-May-24	Sb-T	mg/L	0.0005	0.0005	<0.00050	<0.00050
EB4	8-May-24	Se-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB4	8-May-24	Si-T	mg/L	0.1	0.1	<0.10	<0.10
EB4	8-May-24	Sn-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB4	8-May-24	SO4-D	mg/L	1	1	<1.0	<1.0
EB4	8-May-24	Sr-T	mg/L	0.001	0.001	<0.0010	<0.0010
EB4	8-May-24	S-T	mg/L	3	3	<3.0	<3.0
EB4	8-May-24	Ti-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB4	8-May-24	Tl-T	mg/L	0.00001	0.00001	<0.000010	<0.000010
EB4	8-May-24	Turb	NTU	0.1	0.1	<0.10	<0.10
EB4	8-May-24	U-T	mg/L	0.0001	0.0001	<0.00010	<0.00010
EB4	8-May-24	V-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB4	8-May-24	Zn-T	mg/L	0.005	0.005	<0.0050	<0.0050
EB4	8-May-24	Zr-T	mg/L	0.0001	0.0001	<0.00010	<0.00010

Appendix II – **Phytoplankton and Zooplankton - Quinsam Lakes**

Phytoplankton Results - Quinsam Lakes

Freshwater Zooplankton Enumeration and Identification Methods Report

Quinsam Coal Corporation for Taxonomic Analyses

Stantec Consulting Ltd.
500-4730 Kingsway
Burnaby, BC V5H 0C6

June 28, 2024

123221643

Atikin Hehn
Bureau Veritas Laboratory
4606 Canada Way
Burnaby, BC V5G 1K5

Dear Atikin,

Reference: Quinsam Lakes Phytoplankton, May 2024 (Sample Reference CNH417-07, CNH334-07, CNH376-07, CNH377-07, CNH446-07; Job Numbers C432983, C432974, C432979, C432992)

Introduction

Quinsam Coal Ltd. collects water samples from the Quinsam Lakes system during the growing season to meet long-term water quality monitoring requirements as per the effluent discharge permit issued by the Ministry of Environment and Climate Change Strategy. From 1994 through 2013, the permit required sampling at depths of 1 m, 4 m and 9 m in April through September for Long Lake and Middle Quinsam Lake, with No Name Lake added to the program in June 2012 and Lower Quinsam Lake added in 2013. In 2014 the permit was revised, limiting sampling to surface water (1.0 m depth) three times per year (spring, late summer, fall overturn). Attachment A contains the long-term dataset.

Samples are collected by Quinsam Coal and submitted to Stantec Consulting Ltd. for phytoplankton taxonomic analysis, as part of ongoing monitoring requirements. Some months, an additional sample is taken as a field replicate for quality assurance/quality control. This brief report provides information about samples collected in May 2024 from Long Lake, No Name Lake, Middle Quinsam Lake, and Lower Quinsam Lake. Attachment B contains the results for May 2024. Attachment C contains copies of the chain of custody forms for May.

Methods

Sub-samples (27 mL) of preserved lake water were settled and examined at 100 X, 400 X and 1,000 X magnifications using a Zeiss inverted microscope. Counting effort is defined as at least 100 organisms of the predominant species at 400 X, up to 200 fields at 1,000 X, and a half or whole sub-sample at 100 X.

Reference: **Quinsam Lakes Phytoplankton, May 2024 (Sample Reference CNH417-07, CNH334-07, CNH376-07, CNH377-07, CNH446-07; Job Numbers C432983, C432974, C432979, C432992)**

Results

Abundance

Abundance data for 1993 to 2023 are summarized in Attachment A and detailed taxonomic results for May 2024 are presented in Attachment B. Total abundance in the May samples is shown in Table 1. Total abundance for May ranged from 990 cells/mL (No Name Lake) to 3,500 cells/mL (Lower Quinsam Lake). These numbers are in the range reported historically.

Table 1 Phytoplankton Abundance (cells/mL) in the Quinsam Lake System, 2024

Lake	Date	Abundance (cells/mL) at 1 m depth			
		Total	<5 µm (1,000 X)	5 to 25 µm (400 X)	>25 µm (100 X)
Long	May 8	1,800	1,600	130	57
Middle Quinsam		1,400	1,300	160	0.5
No Name		990	820	170	0.1
No Name (replicate)		1,000	830	180	0
Lower Quinsam		3,500	3,000	500	29

Species Composition

Species composition data for the May 2024 samples are contained in Attachment B. The most abundant phytoplankton in the four lakes were the very small (less than or equal to 5 µm) chrysoflagellates (*Ochromonas* spp. and *Chromulina* spp.). Although these ultra-nanoplankton species were very abundant numerically, they usually contribute little to algal biomass.

Among the larger algae, the most abundant species were as follows:

- Long Lake – chrysophytes *Ochromonas* spp. and *Dinobryon cylindricum* (predominant)
- Middle Quinsam Lake – *Ochromonas* spp. (predominant)
- No Name Lake – chrysophytes *Ochromonas* spp. and *Mallomonas spp.,* green alga *Oocystis* sp., and cryptophytes *Rhodomonas minuta* and *Cryptomonas* spp. (common, no clear dominant taxa).
- Lower Quinsam Lake – Ochromonas spp. (predominant), *Dinobryon sociale, Rhodomonas minuta,* and *Cryptomonas* spp. (common).

The May 2024 samples were similar in composition and abundance to samples collected during the spring in recent years.

Reference: **Quinsam Lakes Phytoplankton, May 2024 (Sample Reference CNH417-07, CNH334-07, CNH376-07, CNH377-07, CNH446-07; Job Numbers C432983, C432974, C432979, C432992)**

Comparison of Replicate Samples

Two replicate samples were collected from 1 m depth in No Name Lake. Percent difference in the duplicate samples was calculated. A difference of up to 10% can be expected for a total cell count of 400 organisms, for repeat sampling from the same bottle; higher percent difference can be expected when separate grabs are used for the replicates, as was done here.

In No Name Lake, total abundance was 1,000 cells/mL in one sample and 990 cells/mL in the other sample, with a difference of 1%. Both abundance and taxonomic composition were similar in the two samples.

Closure

We trust this information meets your present requirements. Should you have any questions or require additional information, please contact the undersigned.

Regards,

Stantec Consulting Ltd.

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Attachments: Attachment A: Historical Abundance Data: Quinsam Lakes System, 1993–2023
Attachment B: Species Composition Data: May 2024
Attachment C: Chain of Custody: May 2024

Reference: **Quinsam Lakes Phytoplankton, May 2024 (Sample Reference CNH417-07, CNH334-07, CNH376-07, CNH377-07, CNH446-07; Job Numbers C432983, C432974, C432979, C432992)**

Attachment A Historical Abundance Data: Quinsam Lakes System, 1993–2023

Table 1-1 Phytoplankton Abundance (cells/mL) in the Quinsam Lakes System, 1993 and 1994

Date	Sampling Site	Total Abundance	< 5mm (1,000X)	5 to 25 mm (400X)	> 25 mm (100X)
1993 October	LLM1	2,300	1,800	530	
	LLM3	3,000	2,400	550	
	LLMB	610	420	190	
1994 May	LL1R	10,000	8,800	1,200	
	LL3R	5,000	3,800	1,200	
	LL9R	4,000	3,200	800	
1994 June	LL0	1,400	1,200	250	
	LL1	1,000	790	220	
	LL4	1,500	1,200	320	
	LL9	2,500	1,900	580	
	LLB	830	440	390	
1994 July	LL1	2,100	1,900	180	
	LL4	1900	1700	250	
	LL9	1,500	1,100	400	
1994 August	LL1	1,700	1,400	290	
	LL4	1,000	850	200	
	LL9	900	780	150	
1994 September	LL1	900	620	250	
	LL4	2,300	2,000	260	
	LL9	2,100	1,700	350	

Table 1-2 Phytoplankton Abundance (cells/mL) in the Quinsam Lakes System, 1995

Date	Sampling Site	Total Abundance	< 5mm (1,000X)	5 to 25 mm (400X)	> 25 mm (100X)
April	LL1	3,100	2,700	340	
	LL4	3,300	2,900	350	
	LL9	1,300	1,100	280	
May	LL1	5,400	4,900	570	
	LL4	4,800	4,100	700	
	LL9	1,500	1,000	500	
June	LL1	2,100	1,800	300	
	LL4	2,600	2,100	500	
	LL9	7,400	6,600	850	
July	LL1	2,000	1,700	300	
	LL4	1,900	1,650	350	
	LL9	1,500	1,200	300	
August	LL1	1,100	960	180	
	LL4	1,300	1,100	240	
	LL9	1,900	1,700	210	
September	LL1	2,900	2,800	170	
	LL4	3,400	3,100	330	
	LL9	1,900	1,600	280	

Table 1-3 Phytoplankton Abundance (cells/mL) in the Quinsam Lakes System, 1996

Date	Sampling Site	Total Abundance	< 5mm (1,000X)	5 to 25 mm (400X)	> 25 mm (100X)
April	LL1	4,600	4,200	340	
	LL4	6,000	5,600	380	
	LL9	1,100	960	160	
May	LL1	2,200	1,600	600	31
	LL4	2,200	1,700	540	16
	LL9	1,700	1,400	290	26
June	LL1	2,100	1,600	440	4
	LL4	1,600	1,300	340	2
	LL9	1,600	1,100	500	9
July	LL1	2,400	2,300	140	1
	LL4	3,200	3,000	200	3
	LL9	No sample			
August	LL1	2,100	1,900	160	1
	LL4	2,200	1,800	390	37
	LL9	1,700	1,500	200	10
September	LL1	1,900	1,600	230	82
	LL4	2,200	1,800	300	145
	LL9	2,100	1,800	220	38
April	MQ1	No sample			
	MQ4	No sample			
	MQ9	No sample			
May	MQ1	2,000	1,700	230	11
	MQ4	1,100	930	180	7
	MQ9	2,200	1,800	430	1
June	MQ1	2,700	2,500	150	3
	MQ4	2,600	2,400	210	7
	MQ9	1,200	1,000	190	1
July	MQ1	2,400	2,100	335	24
	MQ4	1,900	1,400	380	130
	MQ9	1,200	860	320	29
August	MQ1	2,800	2,500	280	17
	MQ4	1,800	1,500	310	18
	MQ9	2,300	1,900	390	21
September	MQ1	1,700	1,300	270	5
	MQ4	900	560	350	0.6
	MQ9	1,200	1,100	190	0.7

Table 1-4 Phytoplankton Abundance (cells/mL) in the Quinsam Lakes System, 1997

Date	Sampling Site	Total Abundance	< 5mm (1,000X)	5 to 25 mm (400X)	> 25 mm (100X)
early May	LL1	3,200	2,800	340	12
	LL4	4,300	4,000	300	32
	LL9	1,700	1,600	140	5
late May[1]	LL1	3,000	2,600	370	61
	LL4	4,900	4,200	620	100
	LL9	4,700	4,000	730	44
June[2]	LL1	1,500	1,100	340	2
	LL4	1,200	1,000	240	1
	LL9	3,900	2,700	1,200	50
July	LL1	2,400	2,300	110	0
	LL4	1,700	1,500	170	0.1
	LL9	480	390	80	2
August	LL1	1,900	1,700	230	0.2
	LL4	880	740	140	0.6
	LL9	1,000	870	93	1.4
September	LL1	1,000	870	140	0.6
	LL4	2,000	1,800	270	0.3
	LL9	700	490	210	0.8
early May	MQ1	1,700	1,400	270	2
	MQ4	1,600	1,400	240	2
	MQ9	2,500	2,300	240	2
late May	MQ1	1,200	1,000	150	0.4
	MQ4	1,600	1,300	280	1
	MQ9	1,200	1,000	190	0.2
June	MQ1	1,900	1,700	140	1
	MQ4	2,500	2,400	130	1
	MQ9	1,400	1,200	200	1
July	MQ1	2,400	2,300	130	0.3
	MQ4	1,500	1,400	110	0.1
	MQ9	890	640	260	0.6
August	MQ1	2,100	1,900	220	0.8
	MQ4	1,500	1,300	190	1.4
	MQ9	1,000	760	240	1.6
September	MQ1	800	640	170	1.3
	MQ4	900	620	280	6.4
	MQ9	650	370	280	1.5

NOTES:

1. Recalculated counting *Synedra radians* at 400X rather than 100X

2. Recalculated counting *Synedra radians* at 400X rather than 100X & *Cyclotella glomerata* at 1,000X rather than 400X

Table 1-5 Phytoplankton Abundance (cells/mL) in the Quinsam Lakes System, 1998

Date	Sampling Site	Total Abundance	< 5mm (1,000X)	5 to 25 mm (400X)	> 25 mm (100X)
April	LL1	2,800	2,600	210	12
	LL4	4,100	3,700	390	12
	LL9	1,600	1,100	500	10
May[1]	LL1	2,000	1,500	430	76
	LL4	1,600	1,100	480	85
	LL9	2,100	1,500	630	20
June	LL1	5,700	5,600	140	0.3
	LL4	7,100	6,900	210	0.3
	LL9	3,300	1,700	1,600	4
July	LL1	1,200	1,100	130	10
	LL4	740	560	170	8
	LL9	760	130	630	5
August	LL1	1,900	1,700	190	2
	LL4	2,200	2,000	230	2
	LL9	1,900	1,600	220	5
September	LL1	5,000	4,900	130	2
	LL4	3,500	3,300	150	2
	LL9	2,200	2,000	220	5
April	MQ1	2,200	1,900	250	3
	MQ4	1,900	1,600	260	3
	MQ9	3,100	2,700	460	2
May	MQ1	2,500	2,300	210	1
	MQ4	2,600	2,400	180	2
	MQ9	2,100	1,700	480	0.4
June	MQ1	1,900	1,700	180	1
	MQ4	1,600	1,400	200	1
	MQ9	1,300	1,000	310	0.4
July	MQ1	1,500	1,400	120	19
	MQ4	1,800	1,600	150	35
	MQ9	1,300	1,100	190	25
August	MQ1	1,900	1,700	250	12
	MQ4	1,300	950	350	10
	MQ9	1,400	890	490	12
September	MQ1	2,000	1,800	200	11
	MQ4	2,700	2,500	220	7
	MQ9	2,100	1,900	230	10

NOTE:
1. Recalculated for counting *Synedra radians* at 400X rather than 100X

Table 1-6 Phytoplankton Abundance (cells/mL) in the Quinsam Lakes System, 1999

Date	Sampling Site	Total Abundance	< 5mm (1,000X)	5 to 25 mm (400X)	> 25 mm (100X)
April	LL1	3,800	3,500	310	9
	LL4	6,800	6,200	560	17
	LL9	3,000	2,600	410	10
May	LL1	No sample			
	LL4	No sample			
	LL9	No sample			
early July	LL1	1,100	910	150	2
	LL4	1,400	1,200	150	1
	LL9	1,300	1,200	100	1
late July	LL1	1,100	870	200	1
	LL4	2,000	1,800	280	1
	LL9	1,000	860	130	1
August	LL1	2,700	2,500	180	2
	LL4	2,800	2,600	170	6
	LL9	3,000	2,800	170	4
September	LL1	3,700	3,500	230	12
	LL4	5,000	4,700	290	17
	LL9	4,000	3,700	290	3
April	MQ1	2,300	1,600	220	430
	MQ4	2,200	1,800	200	230
	MQ9	2,700	1,900	600	190
May	MQ1	No sample			
	MQ4	No sample			
	MQ9	No sample			
early July	MQ1	790	700	90	0.4
	MQ4	770	620	150	0.5
	MQ9	1,100	1,000	130	0.3
late July	MQ1	2,700	2,600	110	0.2
	MQ4	2,100	1,900	220	0.8
	MQ9	620	420	190	0.3
August	MQ1	2,100	2,000	140	6
	MQ4	1,100	980	110	4
	MQ9	1,100	1,000	120	9
September	MQ1	1,300	1,100	190	14
	MQ4	1,500	1,300	190	9
	MQ9	760	540	210	10

Table 1-7 Phytoplankton Abundance (cells/mL) in the Quinsam Lakes System, 2000

Date	Sampling Site	Total Abundance	< 5mm (1,000X)	5 to 25 mm (400X)	> 25 mm (100X)
April	LL1	2,100	1,600	450	33
	LL4	2,500	1,800	700	68
	LL9	1,300	590	740	6.8
May	LL1	3,300	2,800	530	17
	LL4	3,000	2,600	320	15
	LL9	2,000	1,500	490	15
June	LL1	2,900	2,500	390	9.1
	LL4	2,900	2,400	400	19
	LL9	6,400	5,700	730	19
July	LL1	1,600	1,400	130	2.1
	LL4	1,400	1,200	250	1.6
	LL9	1,200	990	250	3.6
August	LL1	1,800	1,600	170	12
	LL4	1,100	940	190	8.2
	LL9	1,500	1,400	130	1.9
September	LL1	2,200	1,900	360	11
	LL4	2,000	1,800	200	9.2
	LL9	1,300	1,100	200	7.2
April	MQ1	1,800	1,300	450	5.9
	MQ4	1,700	1,300	420	1.6
	MQ9	1,500	1,200	280	1.7
May	MQ1	1,800	1,500	290	3
	MQ4	1,600	1,300	290	4.4
	MQ9	1,900	1,600	270	7.6
June	MQ1	2,100	1,900	250	1.4
	MQ4	2,400	2,200	200	2.1
	MQ9	1,800	1,500	380	1.1
July	MQ1	1,300	1,100	210	7.4
	MQ4	2,100	1,800	250	9.6
	MQ9	2,100	1,300	800	22
August	MQ1	1,500	1,200	290	5.8
	MQ4	2,200	1,900	310	7.2
	MQ9	2,400	1,900	500	7.5
September	MQ1	1,800	1,600	200	14
	MQ4	2,100	1,900	250	14
	MQ9	2,000	1,700	220	28

Table 1-8 Phytoplankton Abundance (cells/mL) in the Quinsam Lakes System, 2001

Date	Sampling Site	Total Abundance	< 5mm (1,000X)	5 to 25 mm (400X)	> 25 mm (100X)
April	LL1	3,300	2,600	670	19
	LL4	4,400	3,900	830	13
	LL9	1,400	860	490	5
May	LL1	7,700	6,200	1,100	310
	LL4	11,000	10,000	980	100
	LL9	4,600	3,600	670	22
June	LL1	7,800	6,600	1,000	170
	LL4	6,800	5,100	1,500	210
	LL9	3,000	2,400	680	25
July	LL1	3,300	3,100	170	1
	LL4	3,200	3,000	180	1
	LL9	1,600	1,400	160	2
August	LL1	1,300	1,100	180	1
	LL4	1,700	1,500	200	2
	LL9	720	540	170	1
September	LL1	8,200	8,000	270	13
	LL4	8,800	8,600	260	13
	LL9	4,800	4,600	190	1
April	MQ1	3,600	3,200	400	10
	MQ4	3,500	3,200	310	11
	MQ9	5,700	4,900	830	24
May	MQ1	1,900	1,500	360	17
	MQ4	1,800	1,400	370	14
	MQ9	3,800	3,200	600	13
June	MQ1	2,200	1,900	240	2
	MQ4	3,700	3,400	310	2
	MQ9	4,000	3,600	390	4
July	MQ1	2,500	2,300	230	8
	MQ4	2,700	2,400	260	6
	MQ9	1,500	1,200	240	8
August	MQ1	1,800	1,600	190	17
	MQ4	1,900	1,700	180	15
	MQ9	1,800	1,600	160	16
September	MQ1	1,900	1,700	180	24
	MQ4	3,200	2,900	230	37
	MQ9	1,800	1,600	190	43

Table 1-9 Phytoplankton Abundance (cells/mL) in the Quinsam Lakes System, 2002

Date	Sampling Site	Total Abundance	< 5mm (1,000X)	5 to 25 mm (400X)	> 25 mm (100X)
April	LL1	5,600	5,100	460	57
	LL4	5,600	5,100	490	40
	LL9	1,300	1,100	220	12
May	LL1	2,600	1,900	710	29
	LL4	2,700	2,000	690	41
	LL9	1,800	1,300	460	37
June	LL1	5,800	5,300	340	140
	LL4	9,200	8,600	450	96
	LL9	3,700	3,000	620	27
July	LL1	2,900	2,700	180	0.3
	LL4	2,400	2,200	160	0.6
	LL9	3,900	3,300	560	41.2
August	LL1	2,900	2,800	140	7.2
	LL4	2,300	2,200	150	3.2
	LL9	1,500	1,400	130	0.6
September	LL1	3,900	3,700	220	27
	LL4	3,500	3,200	260	31
	LL9	2,500	2,300	210	2.2
April	MQ1	2,000	1,700	360	8.2
	MQ4	1,900	1,600	300	3.6
	MQ9	1,500	1,200	260	4
May	MQ1	1,400	1,100	270	1.1
	MQ4	1,400	1,200	230	1.7
	MQ9	1,400	1,100	330	1.4
June	MQ1	1,000	940	110	1
	MQ4	800	680	120	0.3
	MQ9	60	50	7	0
July	MQ1	1,700	1,300	330	50
	MQ4	1,500	1,100	360	34
	MQ9	940	700	240	5.5
August*	MQ1	1,400	1,200	140	42
	MQ4	1,200	940	180	76
	MQ9	2,600	200	300	275
September	MQ1	1,400	1,200	160	33
	MQ4	2,100	1,900	220	28
	MQ9	1,100	920	160	28

NOTE:
* Recalculated for counting *Cyclotella bodanica* at 400X rather than 100X

Table 1-10 Phytoplankton Abundance (cells/mL) in the Quinsam Lakes System, 2003

Date	Sampling Site	Total Abundance	< 5mm (1,000X)	5 to 25 mm (400X)	> 25 mm (100X)
April	LL1	4,800	4,200	560	36
	LL4	3,600	2,900	640	8.6
	LL9	640	450	190	6.9
May	LL1	4,200	3,500	620	25
	LL4	4,600	3,800	800	23
	LL9	1,400	1,100	280	16
June	LL1	2,300	1,600	630	37
	LL4	6,800	6,100	600	43
	LL9	4,500	3,800	680	42
July	LL1	1,600	1,400	240	1
	LL4	2,400	2,100	270	0.5
	LL9	2,900	2,700	250	9.8
August	LL1	2,000	1,800	240	0.8
	LL4	2,200	1,900	250	0.5
	LL9	1,900	1,600	260	0.6
September	LL1	2,600	2,400	290	0.2
	LL4	3,700	3,400	340	1.8
	LL9	1,900	1,600	250	1.9
April	MQ1	3,500	2,900	570	28
	MQ4	3,000	2,400	510	17
	MQ9	2,000	1,600	310	17
May	MQ1	2,900	2,400	350	99
	MQ4	3,000	2,400	480	43
	MQ9	3,000	2,500	560	16
June	MQ1	1,300	1,100	180	6
	MQ4	1,900	1,500	420	21
	MQ9	3,000	2,700	350	16
July	MQ1	2,700	2,600	170	0.5
	MQ4	2,000	1,600	380	1.5
	MQ9	1,400	1,100	240	79
August	MQ1	1,300	1,000	280	43
	MQ4	1,500	1,200	240	44
	MQ9	3,500	2,500	620	338
September	MQ1	2,100	1,900	260	6.5
	MQ4	2,300	2,000	290	23
	MQ9	Not available			

Table 1-11 Phytoplankton Abundance (cells/mL) in the Quinsam Lakes System, 2004

Date	Sampling Site	Total Abundance	< 5mm (1,000X)	5 to 25 mm (400X)	> 25 mm (100X)
April	LL1	5,300	4,100	1,200	20
	LL4	3,500	2,600	860	13
	LL9	3,300	2,600	730	9.1
May	LL1	8,000	7,100	860	34
	LL4	6,600	5,300	1,200	36
	LL9	2,800	2,000	770	22
June	LL1	2,900	2,600	270	3.1
	LL4	2,900	2,600	310	5
	LL9	4,900	4,100	730	39
July	LL1	1,600	1,300	280	2.7
	LL4	1,200	1,100	170	2.2
	LL9	1,700	1,400	270	1
August	LL1	1,300	960	350	18
	LL4	1,400	1,000	300	38
	LL9	1,700	1,600	110	27
September	LL1	3,800	3,400	370	27
	LL4	4,300	3,900	350	25
	LL4 - duplicate	3,100	2,800	320	19
	LL9	3,000	2,700	280	12
April	MQ1	1,500	1,120	400	2.2
	MQ4	1,400	1,030	370	5.2
	MQ9	1,500	1,200	340	4.2
May	MQ1	2,300	2,000	310	2.4
	MQ4	1,500	1,200	300	3.6
	MQ9	2,600	2,100	470	2.4
June	MQ1	1,900	1,700	190	34
	MQ4	3,000	2,700	250	48
	MQ9	2,200	1,900	210	123
July*	MQ1	1,200	960	260	6.2
	MQ4	1,700	1,400	260	9.9
	MQ9	1,300	840	340	82
August**	MQ1	2,900	2,600	260	53
	MQ4	3,800	3,500	250	51
	MQ4 - duplicate	2,500	2,200	210	53
September	MQ9	3,900	3,600	260	44
	MQ1	2,300	1,700	550	25
	MQ4	2,100	1,600	420	26
	MQ9	2,500	2,000	520	19

NOTES:

* MQ9 recalculated for counting *Cyclotella bodanica* at 400X rather than 100X

** MQ1, MQ4, MQ9 recalculated for counting *Elakatothrix gelatinosa* colonies at 400X rather than

Table 1-12 Phytoplankton Abundance (cells/mL) in the Quinsam Lakes System, 2005

Date	Sampling Site	Total Abundance	< 5mm (1,000X)	5 to 25 mm (400X)	> 25 mm (100X)
April	LL1	2,700	2,100	550	24
	LL4	3,500	2,800	610	29
	LL9	670	460	200	8.5
May	LL1	7,200	6,600	670	55
	LL4	5,700	4,900	850	20
	LL9	1,300	850	440	20
June	LL1	2,700	2,400	300	2.4*
	LL4	2,800	2,500	330	8.3*
	LL9	990	850	130	8.9
July	LL1	1,200	800	400	44*
	LL4	1,700	1,200	460	33*
	LL9	692	540	150	3.5*
August	LL1	1,400	1,100	290	26
	LL4	1,100	810	220	64
	LL9	2,400	1,900	360	73
September	LL1	1,400	1,100	170	170
	LL4	2,300	1,900	220	170
	LL9	1,800	1,200	590	31*
April	MQ1	1,400	1,100	370	8.8
	MQ4	1,900	1,500	400	3.6
	MQ9	1,700	1,300	400	6.6
May	MQ1	1,300	1,000	300	3.4
	MQ4	1,500	1,200	330	3.2
	MQ9	1,300	1,000	340	3.7
June	MQ1	1,700	1,600	150	4.6
	MQ4	1,000	710	270	2.1
	MQ9	1,100	900	200	1.1
July[1]	MQ1	1,100	860	220	14.6
	MQ4	1,100	920	200	11.2
	MQ9	1,400	700	170	489
August[2]	MQ1	1,100	950	170	0.5
	MQ4	1,900	1,600	250	7.1
	MQ9	2,100	1,700	330	89*
September	MQ1	870	710	140	10.7
	MQ4	1,200	1,100	170	20.2
	MQ9	1,400	1,100	180	146

NOTE:
* = Cyclotella bodanica counted at 400X rather than 100X

Table 1-13 Phytoplankton Abundance (cells/mL) in the Quinsam Lakes System, 2006

Date	Sampling Site	Total Abundance	< 5mm (1,000X)	5 to 25 mm (400X)	> 25 mm (100X)
April	LL1	1,800	1,100	610	1.9*
	LL4	3,200	2,700	520	14.7
	LL9	690	550	135	2.2
May	LL1	2,600	2,000	620	19.7
	LL4	4,900	4,200	640	12.9
	LL9	540	380	160	4.8
June	LL1	860	610	200	39.5
	LL4	2,000	1,800	190	22.2
	LL4 (rep)	1,100	940	190	23.2
	LL9	1,700	1,400	220	17.7
July	LL1	1,300	1,100	160	54.8
	LL4	2,700	2,200	370	165
	LL9	1,700	1,300	350	19.1
August	LL1	2,700	2,500	200	14.3
	LL4	2,600	2,300	220	34.6
	LL9	2,800	2,300	470	23.8
September	LL1	3,800	3,600	160	0.4
	LL4	1,300	1,200	120	2
	LL9	1,800	1,700	130	3.6
April	MQ1	2,200	16,00	240	9.4
	MQ4	2,400	1,900	550	8.6
	MQ9	1,600	1,400	180	8.2
May	MQ1	1,700	1,500	240	10.8
	MQ4	1,700	1,400	320	7.4
	MQ4 (rep)	2,100	1,800	310	11.8
	MQ9	1,900	1,600	280	4.1
June	MQ1	1,900	1,800	130	0.9
	MQ4	1,400	1,200	200	4.4
	MQ9	950	840	110	0.6
July	MQ1	1,100	870	220	42.8
	MQ4	2,000	1,700	260	16.6
	MQ9	2,300	2,100	180	18.8*
August	MQ1	1,500	1,200	280	6.5
	MQ4	2,100	1,800	290	13.3
	MQ9	1,300	880	400	17.0*
September	MQ1	2,500	2,300	200	1.9
	MQ4	2,100	1,800	260	11.8
	MQ9	3,400	2,400	970	1.8*

NOTE:
* *Cyclotella bodanica* (diatom) counted at 400X rather than 100X

Table 1-14 Phytoplankton Abundance (cells/mL) in the Quinsam Lakes System, 2007

Date	Sampling Site	Total Abundance	< 5mm (1,000X)	5 to 25 mm (400X)
April	LL1	3,100	2,800	240
	LL4	3,000	2,200	620
	LL9	1,200	910	240
May	LL1	2,600	2,000	540
	LL4	3,300	2,600	670
	LL9	1,300	890	430
June	LL1	2,100	1,600	420
	LL4	2,500	2,000	520
	LL9	1,100	750	300
July	LL1	2,300	2,000	240
	LL4	2,400	2,100	270
	LL9	3,100	3,000	180
August	LL1	1,100	900	240
	LL4	2,300	2,100	150
	LL4 (rep)	2,600	2,400	150
	LL9	570	480	90
September	LL1	2,500	2,200	280
	LL4	1,700	1,400	240
	LL9	420	350	68
April	MQ1	1,700	1,500	230
	MQ4	1,900	1,602	300
	MQ9	1,100	900	200
May	MQ1	1,500	1,300	250
	MQ4	1,800	1,500	320
	MQ9	2,600	2,300	310
June	MQ1	1,500	1,200	300
	MQ4	1,800	1,600	200
	MQ9	1,500	1,200	290
July	MQ1	1,500	1,100	220
	MQ4	1,900	1,500	440*
	MQ9	1,000	860	150
	MQ9 (rep)	1,600	1,400	150
August	MQ1	2,300	2,100	200
	MQ4	1,100	970	160
	MQ9	710	590	120
September	MQ1	1,400	1,100	270
	MQ4	1,500	1,200	290
	MQ9	1,000	690	300

Table 1-15 Phytoplankton Abundance (cells/mL) in the Quinsam Lakes System, 2008

Date	Sampling Site	Total Abundance	< 5mm (1,000X)	5 to 25 mm (400X)	>25 mm (100X)	> 25 µm (100X)
April	LL1	2,500	2,070	360	13	30
	LL4	3,100	2,500	540	22	50
	LL9	1,300	1,030	240	6.4	20
May	LL1	3,100	2,840	220	36	20
	LL4	5,300	4,820	430	37	25
	LL9	1,300	1,030	260	11	20
June	LL1	1,000	880	110	40	1
	LL4	960	730	220		8
	LL9 (rep)	1,500	1,060	380*	40	16*
	LL9	1,200	780	380*	10	7*
July	LL1	1,000	970	80	2.1	1
	LL4	1,400	1,300	110	7.8	17
	LL9	2,000	1,500	370	4.2	110
August	LL1	1,100	1,000	50	5.6	1
	LL4	1,400	1,300	50	5.8	11
	LL9	1,100	1,060	40	2.8	9
September	LL1	2,100	1,730	420**	16	2**
	LL4	2,300	1,780	490**	13	3**
	LL9	2,900	2,250	690**	4.4	6**
April	MQ1	2,100	1,850	200	2.8	1
	MQ4	1,700	1,530	200	5.8	3
	MQ9	2,800	2410	400	5	4
May	MQ1	1,000	870	130	2.1	1
	MQ4	1,700	1460	230	1.2	2
	MQ9	1,200	1,000	180	2.7	2
June	MQ1	840	700	140	2.9	0.4
	MQ4	1,300	1,040	240	2.1	1
	MQ9	870	580	280	5.8	0.5
July	MQ1	620	520	90	180	8
	MQ4	500	370	130	7.4	8
	MQ9	870	680	180	3.3	0.5
	MQ9 (rep)	1,000	760	260	0.8	9
August	MQ1	750	660	100	5.8	1
	MQ4	980	860	110	14	6
	MQ9	1,300	990	290		5
September	MQ1	1,500	1,310	160		14
	MQ4	1,100	980	150		3
	MQ9	2,800	2,680	130		10

NOTES:
* *Synedra radians* (diatom) counted at 400X rather than 100X, due to high numbers
** *Asterionella formosa* (diatom) counted at 400X rather than 100X, due to high numbers

Table 1-16 Phytoplankton Abundance (cells/mL) in the Quinsam Lakes System, 2009

Date	Sampling Site	Total Abundance	< 5mm (1,000X)	5 to 25 µm (400X)	> 25 µm (100X)
April	LL1	780	480	300	6
	LL4	1,600	1,220	340	4
	LL9	90	60	30	1
May	LL1	6,000	5,150	820	19
	LL4	4,900	4,100	760	10
	LL9	430	290	140	5
June	LL1	1,700	1,370	370	5
	LL4	1,400	1,030	360	12
	LL9	680	340	330	6
July	LL1	2,100	1,900	270	3
	LL4	2,700	2,400	330	4
	LL9	700	340	350	4
August	LL1	3,100	2,900	170	3
	LL4	2,400	2,200	190	15
	LL9	1,700	1,300	370	10
September	LL1	3,700	3,500	220	5
	LL4	2,300	2,100	180	3
	LL9	1,100	950	170	1
April	MQ1	1,400	1,130	250	33
	MQ4	1,300	1,170	160	12
	MQ9	2,300	2,730	520	13
May	MQ1	1,700	1,440	260	3
	MQ4	2,100	1,750	340	5
	MQ9	3,800	3,060	720	18
June	MQ1	1,500	1,360	160	0.1
	MQ4	1,100	990	150	0.2
	MQ9	1,100	940	200	0.8
July	MQ1	1,000	790	190	4
	MQ4	1,300	1,100	220	8
	MQ9	1,200	940	240	5
August	MQ1	610	450	160	0.3
	MQ4	1,300	1,170	170	3
	MQ9	1,600	1,200	390	0.4
September	MQ1	830	670	160	5
	MQ4	1,200	970	170	6
	MQ9	1,400	1,200	240	1

Table 1-17 Phytoplankton Abundance (cells/mL) in the Quinsam Lakes System, 2010

Date	Sampling Site	Total Abundance	< 5mm (1,000X)	5 to 25 µm (400X)	> 25 µm (100X)
April	LL1	630	490	140	1.6
	LL4	1,900	1,500	390	3
	LL9	170	100	70	0.4
May	LL1	1,200	940	270	13.4
	LL4	4,500	3,800	650	17
	LL9	530	390	140	0.9
June	LL1	2,400	1,900	500	5.2
	LL4	3,600	3,000	610	11
	LL9	1,500	1,100	400	10.6
July	LL1	2,100	1,900	170	8.7
	LL1 (rep)	1,900	1,700	180	5
	LL4	3,000	2,800	250	2
	LL9	1,900	1,700	210*	0
August	LL1	1,200	990	180	1.5
	LL4	1,600	1,400	190	1
	LL4 (rep)	1,600	1,400	180	2
	LL9	1,800	1,600	170	0
September	LL1	2,100	1,800	260	15.1
	LL4	4,400	4,200	200	5
	LL9	1,200	1,100	130	0.4
April	MQ1	1,700	1,600	100	0.4
	MQ4	1,200	1,100	120	1
	MQ9	800	710	90	2.4
May	MQ1	1,100	990	120	0.9
	MQ4	1,100	960	150	1
	MQ9	1,600	1,330	240	2.9
June	MQ1	2,000	1,700	270	0.9
	MQ4	1,400	1,100	240	1
	MQ9	1,000	850	200	1.1
July	MQ1	1,800	1,500	250	8.7
	MQ1 (rep)	1,400	1,300	170	6
	MQ4	1,500	1,300	180	10
	MQ9	1,600	1,400	180	4
August	MQ1	1,400	1,200	140	7.2
	MQ4	1,000	870	160	5
	MQ4 (rep)	1,100	900	150	5
	MQ9	1,200	1,000	150	8
September	MQ1	1,300	1,000	260	1.3
	MQ4	1,300	1,040	220	3
	MQ9	1,100	900	190	1.7

Table 1-18 Phytoplankton Abundance (cells/mL) in the Quinsam Lakes System, 2011

Date	Sampling Site	Total Abundance	< 5mm (1,000X)	5 to 25 µm (400X)	> 25 µm (100X)
April	LL1	1,700	1,400	220	52
	LL4	3,900	3,260	540	80
	LL9	2,200	1,820	340	9
May	LL1	3,600	2,880	720	6
	LL1 (rep)	3,500	2,790	690	6
	LL4	4,900	4,160	700	6
	LL9	1,300	900	350	5
June	LL1	2,100	1,750	330	36
	LL4	2,300	2,050	290	3
	LL9	1,500	1,060	450	4
July	LL1	1,400	1,150	270	3
	LL4	1,800	1,440	350	1
	LL4 (rep)	1,900	1,600	300	0.1
	LL9	1,900	1,550	320	2
August	LL1	2,900	2,500	360	15
	LL4	1,800	1,400	320	27
	LL9	1,500	1,200	280	0.9
September	LL1	1,300	940	380	2.2
	LL4	1,800	1,500	380	0.4
	LL9	960	770	190	0.3
April	MQ1	1,600	1,370	270	7
	MQ4	1,400	1,160	270	6
	MQ9	1,900	1,400	490	3
May	MQ1	1,200	1,050	190	2
	MQ1 (rep)	1,200	1,040	170	3
	MQ4	1,800	1,370	410	4
	MQ9	1,600	670	920	4
June	MQ1	2,000	1,840	150	1
	MQ4	1,500	1,300	200	1
	MQ9	1,700	1,200	520	10
July	MQ1	2,200	2,100	110	0.4
	MQ4	1,600	1,330	230	3
	MQ9	1,000	770	200	1
	MQ9(rep)	1,100	860	200	1
August	MQ1	1,400	1,200	210	4
	MQ4	3,300	3,000	280	0.6
	MQ9	1,200	1,000	200	0.1
September	MQ1	2,300	2,100	190	17.2
	MQ4	2,600	2,400	190	0.2
	MQ9	1,600	1,400	240	9.6

Table 1-19 Phytoplankton Abundance (cells/mL) in the Quinsam Lakes System, 2012

Date	Sampling Site	Total Abundance	< 5mm (1,000X)	5 to 25 µm (400X)	> 25 µm (100X)
April	LL1	2,300	1,980	330	5
	LL4	3,200	2,570	590	6
	LL9	1,000	800	190	6
May	LL1	3,000	2,470	470	15
	LL4	2,200	1,640	600	7
	LL9	2,300	2,050	280	7
June	LL1	1,400	1,080	310	3
	LL4	1,700	1,400	320	2
	LL9	980	810	170	2
	LL9 (rep)	1,200	1,020	140	1
July	LL1	1,600	1,390	170	3
	LL4	Sample lost in transit (broken bottle)			
	LL9	880	730	150	2
August	LL1	970	740	210	19
	LL1 (rep)	940	760	170	14
	LL4	1,300	990	250	35
	LL9	380	250	130	0.5
September	LL1	Sample unpreserved – no analysis done			
	LL4	2,800	2,350	480	1
	LL9	Sample unpreserved – no analysis done			
April	MQ1	2,200	2,010	200	3
	MQ4	1,700	1,440	220	3
	MQ9	1,600	1,420	180	5
May	MQ1	1,100	990	140	1
	MQ4	830	680	140	0
	MQ9	1,200	1,000	150	0.2
June	MQ1	2,100	1,920	170	0.4
	MQ4	890	740	150	0.3
	MQ9	1,100	910	200	0.4
	MQ9 (rep)	1,100	920	200	0.5
July	MQ1	1,300	1,210	100	0.4
	MQ4	1,100	1,010	90	10
	MQ9	740	640	100	1
August	MQ1	1,030	860	180	0.8
	MQ1 (rep)	920	720	200	0.2
	MQ4	810	660	140	10
	MQ9	430	340	90	1.6
September	MQ1	900	730	170	0.5
	MQ4	760	650	115	2
	MQ9	580	430	160	0.5
June	NNL1	1,600	1,240	320	0.5
	NNL4	1,000	670	370	0.2
	NNL9	840	700	140	1
	NNL9 (rep)	880	730	160	0.8

Table 1-19 Phytoplankton Abundance (cells/mL) in the Quinsam Lakes System, 2012

Date	Sampling Site	Total Abundance	< 5mm (1,000X)	5 to 25 µm (400X)	> 25 µm (100X)
July	NNL1	1,300	1,000	260	1.2
	NNL4	1,700	1,390	310	1
	NNL9	820	540	280	0.2
August	NNL1	810	660	150	1.6
	NNL1 (rep)	790	590	200	1
	NNL4	1,800	1,350	440	0.8
	NNL9	730	530	195	0.04
September	NNL1	1,530	1,170	360	1.2
	NNL4	1,260	970	290	2
	NNL9	1,740	1530	220	0.2

Table 1-20 Phytoplankton Abundance (cells/mL) in the Quinsam Lakes System, 2013

Sampling Site	Date	Depth	< 5mm (1,000X)	< 5 µm (1,000X)	5 to 25 µm (400X)	> 25 µm (100X)
Long Lake	April	0.5 m	2,300	1,750	530	10
		1 m	3,000	2,470	570	15
	August	0.5 m	1,300	880	455	2
		1.0 m	1,700	1,170	470	15
	October	0.5 m	1,500	1,150	340	12
		1.0 m	1,900	1440	400	14
Middle Quinsam Lake	April	0.5 m	1,350	1,080	270	2
		1.0 m	1,400	1,150	250	2
	August	0.5 m	1,300	1,045	235	7
		1.0 m	1,300	1,010	325	6
		1.0 m (rep)	1,200	990	230	9
	October	0.5 m	1,800	1,440	350	2
		1.0 m	1,900	1,570	290	2
		1.0 m (rep)	1,600	1,310	300	3
No Name Lake	April	0.5 m	1,300	900	370	45
		1.0 m	1,600	1,150	380	36
	August	0.5 m	1,200	880	440	5
		1.0 m	1,500	1,060	455	6
		1.0 m (rep)	1,700	1,315	470	8
	October	0.5 m	1,800	1,310	460	1
		1.0 m	1,600	1,060	540	1
Lower Quinsam Lake	April	0.5 m	1,800	1,420	406	2
		1 m	950	700	245	2
	August	0.5 m	960	810	150	2
		1.0 m	620	460	160	3
	October	0.5 m	1,300	1,040	200	12
		1.0 m	1,300	1,060	230	4

Table 1-21 Phytoplankton Abundance (cells/mL) in the Quinsam Lakes System, 2014

Sampling Site	Date	Depth	< 5mm (1,000X)	< 5 µm (1,000X)	5 to 25 µm (400X)	> 25 µm (100X)
Long Lake	April	1 m	3100	2665	330	86.6
	July	1 m	1700	1170	490	0.9
	October	1 m	1500	1200	290	18.6
Middle Quinsam Lake	April	1 m	1000	840	155	11.4
		1 m replicate	590	480	100	11.7
	July	1 m	3200	2950	240	0.5
	October	1 m	1700	1400	310	3.2
No Name Lake	April	1 m	1600	1260	290	83
	July	1 m	1300	970	310	2.5
		1 m replicate	1200	830	250	3.1
	October	1 m	1600	1400	200	1.7
		1 m replicate	1500	1200	230	2.2
Lower Quinsam Lake	April	1 m	1600	1400	225	7.6
	July	1 m	1200	1010	210	1.8
	October	1 m	2400	2000	350	66

Table 1-22 Phytoplankton Abundance (cells/mL) in the Quinsam Lakes System, 2015

Lake	Month	Depth (m)	< 5mm (1,000X)	< 5 µm (1,000X)	5 to 25 µm (400X)	> 25 µm (100X)
Long	April	1	3700	3300	400	15
	July	1	1300	1030	260	6.6
	October	1	2100	1800	230	14.6
Middle Quinsam	April	1	1600	1300	300	2.4
	July	1	2900	1060	1850	2.8
	October	1	1150	920	230	0.3
No Name	April	1	1200	870	350	1.1
	July	1	880	610	260	6.6
	October	1	1350	1000	300	4.3
	October replicate	1	1200	920	280	4.5
Lower Quinsam	April	1	2200	1800	350	28
	April replicate	1	2300	1800	520	18
	July	1	3200	580	2630	3.3
	October	1	1500	1100	330	71

Table 1-23 Phytoplankton Abundance (cells/mL) in the Quinsam Lakes System, 2016

Lake	Month	Abundance (cells/mL) at 1 m depth			
		Total	< 5 µm (1,000 X)	5 to 25 µm (400 X)	> 25 µm (100 X)
Long	April	1,500	1,300	240	5.5
Middle Quinsam		1,100	882	240	2.8
No Name		1,100	864	240	1.8
No Name (replicate)		970	792	180	1.8
Lower Quinsam		1,500	1,200	260	5.4
Long	August	1,200	990	140	22
Middle Quinsam		930	810	116	1.5
No Name		1,800	1,200	500	42
No Name (replicate)		1,900	1,280	595	46
Lower Quinsam		2,400	1,850	578	1.4
Long	November	780	640	140	0.5
Middle Quinsam		610	520	90	3
No Name		650	600	50	0.4
Lower Quinsam		300	250	50	0

Table 1-24 Phytoplankton Abundance (cells/mL) in the Quinsam Lakes System, 2017

Lake	Month	Abundance (cells/mL) at 1 m depth			
		Total	< 5 µm (1,000 X)	5 to 25 µm (400 X)	> 25 µm (100 X)
Long	May	2,700	2,400	340	16.2
Middle Quinsam		1,900	1,500	370	15.4
No Name		1,300	1,000	320	7.9
Lower Quinsam		1,700	1,300	390	1.2
Long	Sept.	1,100	940	200	1.5
Middle Quinsam		980	760	220	0.9
No Name		1,400	860	480	29.8
No Name Replicate		1,500	1,000	450	28.1
Lower Quinsam		1,700	990	600	86.6
Long	Oct.	2,000	1,800	190	0.4
Middle Quinsam		860	770	80	7.5
No Name		1,600	1,370	260	1
No Name Replicate		1,800	1,400	390	4.2
Lower Quinsam		1,300	770	530	14.8

Table 1-25 Phytoplankton Abundance (cells/mL) in the Quinsam Lakes System, 2018

Lake	Month	Abundance (cells/mL) at 1 m depth			
		Total	<5 µm (1,000 X)	5 to 25 µm (400 X)	>25 µm (100 X)
Long	May	1,500	1,300	150	3.4
Long—duplicate		1,300	1,100	140	4.8
Middle Quinsam		1,000	920	110	0.4
No Name		1,800	1,500	250	0.1
Lower Quinsam		2,700	2,400	320	0.5
Long	August	1,200	1,100	110	1.7
Middle Quinsam		1,600	1,500	180	0.2
No Name		1,400	1,200	270	2
Lower Quinsam		2,300	680	1,600	13
Lower Quinsam—replicate		3,400	1,100	2,300	6.6
Long	November	9,200	2,500	210	6,500
Middle Quinsam		2,100	1,700	360	0.04
No Name		1,600	1,300	300	0.7
Lower Quinsam		1,800	1,500	230	96

Table 1-26 Phytoplankton Abundance (cells/mL) in the Quinsam Lakes System, 2019

Lake	Month	Abundance (cells/mL) at 1 m depth			
		Total	<5 µm (1,000 X)	5 to 25 µm (400 X)	>25 µm (100 X)
Long	1-May	2,400	1,900	430	1
Long (duplicate)		2,100	1,700	420	1.7
Middle Quinsam	2-May	320	260	60	1.2
No Name	1-May	740	440	300	0.1
Lower Quinsam	2-May	600	500	99	1.2
Long	8-May	2,000	1,700	300	0.5
Middle Quinsam		1,000	920	80	0.4
No Name		2,700	2,100	570	0.03
Lower Quinsam		2,100	1,800	310	11.9
Long	30-Jul	2,600	2,300	220	1.3
Middle Quinsam		1,800	1,600	220	0.7
No Name		2,400	2,100	350	4.9
No Name (duplicate)		2,200	1,800	370	9
Lower Quinsam		1,900	1,500	320	1
Long	Oct. 24	2,400	1,900	450	0.7
Middle Quinsam		1,300	1,100	210	0.04

Table 1-27 Phytoplankton Abundance (cells/mL) in the Quinsam Lake System, 2020

Lake	Date	Abundance (cells/mL) at 1 m depth			
		Total	<5 µm (1,000 X)	5 to 25 µm (400 X)	>25 µm (100 X)
Long	12-May	3,400	2,800	330	275
Middle Quinsam		1,200	1,150	65	4.2
No Name[1]		4,100	1,600	2,500	0.4
Lower Quinsam	13-May	4,000	3,500	360	95
Long	5-Aug	2,600	2,400	160	13
Middle Quinsam		1,500	1,300	190	0.4
Middle Quinsam replicate		1,400	1,200	200	0.5
Long	7-Oct	3,200	3,000	200	2.6
Long replicate		3,000	2,800	200	1.6
Middle Quinsam		3,000	2,700	250	2.2

NOTE:

1. *Dinobryon* spp. counted at 400X rather than 100X due to high abundance

Table 1-28 Phytoplankton Abundance (cells/mL) in the Quinsam Lake System, 2021

Lake	Date	Abundance (cells/mL) at 1 m depth			
		Total	<5 µm (1,000 X)	5 to 25 µm (400 X)	>25 µm (100 X)
Long	4-May	1,000	920	120	1.7
Long (replicate)		1,200	1,100	120	0.7
Middle Quinsam		2,200	2,100	120	0.1
No Name[1]		1,200	990	220	0.2
Lower Quinsam		1,300	1,100	180	1.8
Long	12-Jul	1,000	830	190	0.9
Long (replicate)		1,000	810	190	0.4
Middle Quinsam		1,400	1000	390	0.2
Long	6-Oct	2,100	1,900	190	0.4
Middle Quinsam		2,200	2,000	200	12.6
Middle Quinsam replicate)		2,200	2,000	230	11.4

NOTE:

1. *Dinobryon* spp. counted at 400X rather than 100X due to high abundance

Table 1-29 **Phytoplankton Abundance (cells/mL) in the Quinsam Lake System, 2022**

Lake	Date	Abundance (cells/mL) at 1 m depth			
		Total	<5 µm (1,000 X)	5 to 25 µm (400 X)	>25 µm (100 X)
Long	6-April, 7-April	1,400	1,300	83	2.4
Middle Quinsam		1,800	1,700	70	0.5
Middle Quinsam (replicate)		1,800	1,700	65	0.5
No Name		1,500	1,400	88	7.8
No Name (replicate)		1,800	1,700	100	4.4
Lower Quinsam		1,600	1,500	54	0.6
Long	3-May, 4-May	1,700	1,500	170	0.9
Middle Quinsam		1,700	1,600	100	0.4
No Name		1,400	1,300	160	0.3
Lower Quinsam		1,700	1,600	180	1.6
Long	20-Jul	1,300	1,100	200	0.4
Middle Quinsam		1,400	1,200	250	1.3
Middle Quinsam (replicate)		1,200	1,000	200	0.2
Long (SEE NOTE)	12-Oct	1,700	1,500	170	2
Long (replicate) (SEE NOTE)		1,500	1,300	180	0.1
Middle Quinsam		1,000	900	120	2

NOTE It is possible that results for the two October Long Lake samples were affected by an issue with the laboratory. Subsamples of the preserved sample had been removed for chemical analysis, and it is not known whether the sample mixing methods prior to subsampling were the same as are followed for the phytoplankton samples.

Table 1-30 **Phytoplankton Abundance (cells/mL) in the Quinsam Lake System, 2023**

Lake	Date	Abundance (cells/mL) at 1 m depth			
		Total	<5 µm (1,000 X)	5 to 25 µm (400 X)	>25 µm (100 X)
Long	3-May, 4-May	2,800	2,700	170	2
Middle Quinsam		1,100	940	120	1.1
No Name		1,900	1,800	160	0.5
Lower Quinsam		1,300	1,100	180	22
Lower Quinsam (replicate)		1,200	1,100	120	7
Long	18-Jul	960	850	120	1.1
Long (replicate)		870	740	130	2.3
Middle Quinsam		1,200	530	710	0.3
Long	10-Oct	1,100	990	140	6.7
Middle Quinsam		1,300	1,200	150	25
Middle Quinsam (replicate)		1,400	1,200	140	28

Reference: **Quinsam Lakes Phytoplankton, May 2024 (Sample Reference CNH417-07, CNH334-07, CNH376-07, CNH377-07, CNH446-07; Job Numbers C432983, C432974, C432979, C432992)**

Attachment B Species Composition Data: May 2024

Quinsam Lake Phytoplankton - 8 May 2024
Long Lake 1 m (CNH417-07, Job C432983)
27 ml sample settled

Total Cells Counted	**1,042**
Total Cells Per mL	**1,800**

	Number Counted	Cells per mL
1000X magnification - 50 fields		
CHRYSOPHYCEAE		
Ochromonas/Chromulina spp. (2-3 um)	59	1062
Ochromonas/Chromulina spp. (4-5 um)	14	252
Ochromonas/Chromulina spp. (6-7 um)	12	216
Pseudokephyrion sp.	2	36
Chrysochromulina cf. parva	4	72
TOTAL	**91**	**1638**
400X magnification - 3 strips		
CHRYSOPHYCEAE		
Chrysolikos sp.	1	1
Diceras chodatii	2	1
Dinobryon sp.	23	13
Mallomonas spp.	1	1
Ochromonas spp. (8-10 um)	119	67
unidentified cyst	1	1
BACILLARIOPHYCEAE		
Achnanthes spp.	4	2
Cyclotella cf. stelligera/ocellata	3	2
Gomphonema sp. (30 um)	1	1
Melosira italica (fil)	5	3
Synedra sp. (small)	1	1
CHLOROPHYCEAE		
Oocystis sp. (cells+cols)	1	1
Gloeocystis sp. (cells + cols)	6	3
DINOPHYCEAE		
Gymnodinium sp.	1	1
CRYPTOPHYCEAE		
Cryptomonas spp.	23	13
Rhodomonas minuta	21	12
CYANOPHYCEAE		
Dactylococcopsis acicularis (cols)	21	12
TOTAL	**234**	**133**
100X magnification - half sample		
CHRYSOPHYCEAE		
Dinobryon cylindricum (110 col, 711 cells)	711	56.9
BACILLARIOPHYCEAE		
Synedra radians	3	0.24
Synedra ulna	3	0.24
TOTAL	**717**	**57.4**

Quinsam Lake Phytoplankton - 8 May 2024
Middle Quinsam Lake 1 m (CNH334-07, Job C432974)
27 ml sample settled

Total Cells Counted	**276**
Total Cells Per mL	**1,400**

	Number Counted	Cells per mL
1000X magnification - 50 fields		
CHRYSOPHYCEAE		
Ochromonas/Chromulina spp. (2-3 um)	44	792
Ochromonas/Chromulina spp. (4-5 um)	18	324
Ochromonas/Chromulina spp. (6-7 um)	6	108
Pseudokephyrion sp.	2	36
Chrysochromulina parva	1	18
TOTAL	**71**	**1278**
400X magnification - 2 strips		
CHRYSOPHYCEAE		
Dinobryon sp.	20	17
Ochromonas spp. (8-10 um)	142	121
BACILLARIOPHYCEAE		
Cyclotella glomerata (cells + cols)	2	2
Cyclotella cf. stelligera/ocellata	3	3
Melosira italica (fil)	1	1
Navicula sp. (40 um)	1	1
DINOPHYCEAE		
Peridinium sp.	1	1
CRYPTOPHYCEAE		
Cryptomonas spp.	5	4
Rhodomonas minuta	17	14
TOTAL	**192**	**163**
100X magnification - whole sample		
CHRYSOPHYCEAE		
Dinobryon cylindricum (1 col, 2 cells)	2	0.1
BACILLARIOPHYCEAE		
Navicula sp. (60 um)	1	0.04
Synedra radians	5	0.2
Synedra ulna	4	0.16
CHLOROPHYCEAE		
Closteriopsis sp.	1	0.04
TOTAL	**13**	**0.5**

Quinsam Lake Phytoplankton - 8 May 2024
No Name Lake 1 m (CNH376-07, Job C432979)
27 ml sample settled

Total Cells Counted	**501**
Total Cells Per mL	**990**

	Number Counted	Cells per mL
1000X magnification - 100 fields		
CHRYSOPHYCEAE		
Ochromonas/Chromulina spp. (2-A13 um)	50	450
Ochromonas/Chromulina spp. (4-5 um)	22	198
Ochromonas/Chromulina spp. (6-7 um)	15	135
Pseudokephyrion sp.	4	36
TOTAL	**91**	**819**
400X magnification - 4 strips		
CHRYSOPHYCEAE		
Chrysococcus paludosa (cells+cols)	1	0.4
Diceras chodati	1	0.4
Mallomonas spp.	53	23
Ochromonas spp. (8-10 um)	82	35
BACILLARIOPHYCEAE		
Achnanthes sp.	12	5
Melosira italica (fil)	10	4
Navicula spp. (25 um)	3	1
Synedra sp. (small)	3	1
CHLOROPHYCEAE		
Gloeocystis sp. (cells)	22	9
Oocystis sp. (cells + cols)	80	34
CRYPTOPHYCEAE		
Cryptomonas spp.	39	17
Rhodomonas minuta	72	31
CYANOPHYCEAE		
Dactylococcopsis acicularis (cols)	30	13
TOTAL	**408**	**173**
100X magnification - whole sample		
CHLOROPHYCEAE		
Botryococcus braunii (cols)	1	0.04
Closterium sp.	1	0.04
TOTAL	**2**	**0.1**

Quinsam Lake Phytoplankton - 8 May 2024
No Name Lake 1 m Replicate (CNH377-07, Job C432979)
27 ml sample settled

Total Cells Counted	**509**
Total Cells Per mL	**1,000**

	Number Counted	Cells per mL
1000X magnification - 100 fields		
CHRYSOPHYCEAE		
Ochromonas/Chromulina spp. (2-A13 um)	42	378
Ochromonas/Chromulina spp. (4-5 um)	32	288
Ochromonas/Chromulina spp. (6-7 um)	13	117
Pseudokephyrion sp.	5	45
TOTAL	**92**	**828**
400X magnification - 4 strips		
CHRYSOPHYCEAE		
Mallomonas spp.	73	31
Ochromonas spp. (8-10 um)	84	36
BACILLARIOPHYCEAE		
Achnanthes sp.	13	6
Melosira italica (fil)	10	4
Navicula spp. (25 um)	2	1
CHLOROPHYCEAE		
Gloeocystis sp. (cells)	14	6
Schroderia setigera	2	1
Oocystis sp. (cells + cols)	70	30
CRYPTOPHYCEAE		
Cryptomonas spp.	40	17
Rhodomonas minuta	83	35
CYANOPHYCEAE		
Dactylococcopsis acicularis (cols)	26	11
TOTAL	**417**	**177**
100X magnification - whole sample		
nothing visible		
TOTAL	**0**	**0**

Quinsam Lake Phytoplankton - 8 May 2023
Lower Quinsam Lake 1 m (CNH446-07, Job C432992)
27 ml sample settled

Total Cells Counted	**745**
Total Cells Per mL	**3,500**

	Number Counted	Cells per mL
1000X magnification - 25 fields		
CHRYSOPHYCEAE		
Ochromonas/Chromulina spp. (2-3 um)	40	1440
Ochromonas/Chromulina spp. (4-5 um)	22	792
Ochromonas/Chromulina spp. (6-7 um)	12	432
Pseudokephyrion sp.	6	216
Chrysochromulina parva	2	72
CHLOROPHYCEAE		
Oocystis sp. (5 x 3 um)	3	
TOTAL	**85**	**2952**
400X magnification - 1 strip		
CHRYSOPHYCEAE		
Chrysolikos sp.	2	3
Dinobryon sp.	33	56
Mallomonas sp.	1	2
Ochromonas spp. (8-10 um)	148	252
BACILLARIOPHYCEAE		
Achnanthes spp.	2	3
Cyclotella glomerata (cells + cols)	3	5
Melosira sp. (fil)	1	2
Synedra sp. (small)	1	2
CHLOROPHYCEAE		
Gloeocystis sp. (cols + cells)	3	5
Oocystis sp. (cells+cols)	1	2
Scenedesmus sp. (col)		1
Tetraedron sp.	1	
Tetraedron minimum	5	9
DINOPHYCEAE		
Gymnodinium sp.	18	31
Peeridinium sp.	2	3
CRYPTOPHYCEAE		
Cryptomonas spp.	48	82
Rhodomonas minuta	25	43
TOTAL	**294**	**499**
100X magnification - half sample		
CHRYSOPHYCEAE		
Dinobryon bavaricum (14 col, 23 cells)	23	1.8
Dinobryon cylindricum (4 cols, 36 cells)	36	2.9
Dinobryon sociale (50 cols, 298 cells)	298	23.8
BACILLARIOPHYCEAE		
Asterionella formosa (1 col, 5 cells)	5	0.4
Synedra ulna	3	0.2
Synedra radians	57	4.6
Tabellaria fenestrata (1 col, 3 cells)	3	0.2
TOTAL	**366**	**29**

Reference: **Quinsam Lakes Phytoplankton, May 2024 (Sample Reference CNH417-07, CNH334-07, CNH376-07, CNH377-07, CNH446-07; Job Numbers C432983, C432974, C432979, C432992)**

Attachment B Species Composition Data: May 2024

Quinsam Lake Phytoplankton - 8 May 2024
Long Lake 1 m (CNH417-07, Job C432983)
27 ml sample settled

Total Cells Counted	**1,042**
Total Cells Per mL	**1,800**

	Number Counted	Cells per mL
1000X magnification - 50 fields		
CHRYSOPHYCEAE		
Ochromonas/Chromulina spp. (2-3 um)	59	1062
Ochromonas/Chromulina spp. (4-5 um)	14	252
Ochromonas/Chromulina spp. (6-7 um)	12	216
Pseudokephyrion sp.	2	36
Chrysochromulina cf. parva	4	72
TOTAL	**91**	**1638**
400X magnification - 3 strips		
CHRYSOPHYCEAE		
Chrysolikos sp.	1	1
Diceras chodatii	2	1
Dinobryon sp.	23	13
Mallomonas spp.	1	1
Ochromonas spp. (8-10 um)	119	67
unidentified cyst	1	1
BACILLARIOPHYCEAE		
Achnanthes spp.	4	2
Cyclotella cf. stelligera/ocellata	3	2
Gomphonema sp. (30 um)	1	1
Melosira italica (fil)	5	3
Synedra sp. (small)	1	1
CHLOROPHYCEAE		
Oocystis sp. (cells+cols)	1	1
Gloeocystis sp. (cells + cols)	6	3
DINOPHYCEAE		
Gymnodinium sp.	1	1
CRYPTOPHYCEAE		
Cryptomonas spp.	23	13
Rhodomonas minuta	21	12
CYANOPHYCEAE		
Dactylococcopsis acicularis (cols)	21	12
TOTAL	**234**	**133**
100X magnification - half sample		
CHRYSOPHYCEAE		
Dinobryon cylindricum (110 col, 711 cells)	711	56.9
BACILLARIOPHYCEAE		
Synedra radians	3	0.24
Synedra ulna	3	0.24
TOTAL	**717**	**57.4**

Quinsam Lake Phytoplankton - 8 May 2024
Middle Quinsam Lake 1 m (CNH334-07, Job C432974)
27 ml sample settled

Total Cells Counted	**276**
Total Cells Per mL	**1,400**

	Number Counted	Cells per mL
1000X magnification - 50 fields		
CHRYSOPHYCEAE		
Ochromonas/Chromulina spp. (2-3 um)	44	792
Ochromonas/Chromulina spp. (4-5 um)	18	324
Ochromonas/Chromulina spp. (6-7 um)	6	108
Pseudokephyrion sp.	2	36
Chrysochromulina parva	1	18
TOTAL	**71**	**1278**
400X magnification - 2 strips		
CHRYSOPHYCEAE		
Dinobryon sp.	20	17
Ochromonas spp. (8-10 um)	142	121
BACILLARIOPHYCEAE		
Cyclotella glomerata (cells + cols)	2	2
Cyclotella cf. stelligera/ocellata	3	3
Melosira italica (fil)	1	1
Navicula sp. (40 um)	1	1
DINOPHYCEAE		
Peridinium sp.	1	1
CRYPTOPHYCEAE		
Cryptomonas spp.	5	4
Rhodomonas minuta	17	14
TOTAL	**192**	**163**
100X magnification - whole sample		
CHRYSOPHYCEAE		
Dinobryon cylindricum (1 col, 2 cells)	2	0.1
BACILLARIOPHYCEAE		
Navicula sp. (60 um)	1	0.04
Synedra radians	5	0.2
Synedra ulna	4	0.16
CHLOROPHYCEAE		
Closteriopsis sp.	1	0.04
TOTAL	**13**	**0.5**

Quinsam Lake Phytoplankton - 8 May 2024
No Name Lake 1 m (CNH376-07, Job C432979)
27 ml sample settled

Total Cells Counted	**501**
Total Cells Per mL	**990**

	Number Counted	Cells per mL
1000X magnification - 100 fields		
CHRYSOPHYCEAE		
Ochromonas/Chromulina spp. (2-A13 um)	50	450
Ochromonas/Chromulina spp. (4-5 um)	22	198
Ochromonas/Chromulina spp. (6-7 um)	15	135
Pseudokephyrion sp.	4	36
TOTAL	**91**	**819**
400X magnification - 4 strips		
CHRYSOPHYCEAE		
Chrysococcus paludosa (cells+cols)	1	0.4
Diceras chodati	1	0.4
Mallomonas spp.	53	23
Ochromonas spp. (8-10 um)	82	35
BACILLARIOPHYCEAE		
Achnanthes sp.	12	5
Melosira italica (fil)	10	4
Navicula spp. (25 um)	3	1
Synedra sp. (small)	3	1
CHLOROPHYCEAE		
Gloeocystis sp. (cells)	22	9
Oocystis sp. (cells + cols)	80	34
CRYPTOPHYCEAE		
Cryptomonas spp.	39	17
Rhodomonas minuta	72	31
CYANOPHYCEAE		
Dactylococcopsis acicularis (cols)	30	13
TOTAL	**408**	**173**
100X magnification - whole sample		
CHLOROPHYCEAE		
Botryococcus braunii (cols)	1	0.04
Closterium sp.	1	0.04
TOTAL	**2**	**0.1**

Quinsam Lake Phytoplankton - 8 May 2024
No Name Lake 1 m Replicate (CNH377-07, Job C432979)
27 ml sample settled

Total Cells Counted	**509**
Total Cells Per mL	**1,000**

	Number Counted	Cells per mL
1000X magnification - 100 fields		
CHRYSOPHYCEAE		
Ochromonas/Chromulina spp. (2-A13 um)	42	378
Ochromonas/Chromulina spp. (4-5 um)	32	288
Ochromonas/Chromulina spp. (6-7 um)	13	117
Pseudokephyrion sp.	5	45
TOTAL	**92**	**828**
400X magnification - 4 strips		
CHRYSOPHYCEAE		
Mallomonas spp.	73	31
Ochromonas spp. (8-10 um)	84	36
BACILLARIOPHYCEAE		
Achnanthes sp.	13	6
Melosira italica (fil)	10	4
Navicula spp. (25 um)	2	1
CHLOROPHYCEAE		
Gloeocystis sp. (cells)	14	6
Schroderia setigera	2	1
Oocystis sp. (cells + cols)	70	30
CRYPTOPHYCEAE		
Cryptomonas spp.	40	17
Rhodomonas minuta	83	35
CYANOPHYCEAE		
Dactylococcopsis acicularis (cols)	26	11
TOTAL	**417**	**177**
100X magnification - whole sample		
nothing visible		
TOTAL	**0**	**0**

Quinsam Lake Phytoplankton - 8 May 2023
Lower Quinsam Lake 1 m (CNH446-07, Job C432992)
27 ml sample settled

Total Cells Counted	**745**
Total Cells Per mL	**3,500**

	Number Counted	Cells per mL
1000X magnification - 25 fields		
CHRYSOPHYCEAE		
Ochromonas/Chromulina spp. (2-3 um)	40	1440
Ochromonas/Chromulina spp. (4-5 um)	22	792
Ochromonas/Chromulina spp. (6-7 um)	12	432
Pseudokephyrion sp.	6	216
Chrysochromulina parva	2	72
CHLOROPHYCEAE		
Oocystis sp. (5 x 3 um)	3	
TOTAL	**85**	**2952**
400X magnification - 1 strip		
CHRYSOPHYCEAE		
Chrysolikos sp.	2	3
Dinobryon sp.	33	56
Mallomonas sp.	1	2
Ochromonas spp. (8-10 um)	148	252
BACILLARIOPHYCEAE		
Achnanthes spp.	2	3
Cyclotella glomerata (cells + cols)	3	5
Melosira sp. (fil)	1	2
Synedra sp. (small)	1	2
CHLOROPHYCEAE		
Gloeocystis sp. (cols + cells)	3	5
Oocystis sp. (cells+cols)	1	2
Scenedesmus sp. (col)		1
Tetraedron sp.	1	
Tetraedron minimum	5	9
DINOPHYCEAE		
Gymnodinium sp.	18	31
Peeridinium sp.	2	3
CRYPTOPHYCEAE		
Cryptomonas spp.	48	82
Rhodomonas minuta	25	43
TOTAL	**294**	**499**
100X magnification - half sample		
CHRYSOPHYCEAE		
Dinobryon bavaricum (14 col, 23 cells)	23	1.8
Dinobryon cylindricum (4 cols, 36 cells)	36	2.9
Dinobryon sociale (50 cols, 298 cells)	298	23.8
BACILLARIOPHYCEAE		
Asterionella formosa (1 col, 5 cells)	5	0.4
Synedra ulna	3	0.2
Synedra radians	57	4.6
Tabellaria fenestrata (1 col, 3 cells)	3	0.2
TOTAL	**366**	**29**

Reference: **Quinsam Lakes Phytoplankton, May 2024 (Sample Reference CNH417-07, CNH334-07, CNH376-07, CNH377-07, CNH446-07; Job Numbers C432983, C432974, C432979, C432992)**

Attachment B Species Composition Data: May 2024

Quinsam Lake Phytoplankton - 8 May 2024
Long Lake 1 m (CNH417-07, Job C432983)
27 ml sample settled

Total Cells Counted	**1,042**
Total Cells Per mL	**1,800**

	Number Counted	Cells per mL
1000X magnification - 50 fields		
CHRYSOPHYCEAE		
Ochromonas/Chromulina spp. (2-3 um)	59	1062
Ochromonas/Chromulina spp. (4-5 um)	14	252
Ochromonas/Chromulina spp. (6-7 um)	12	216
Pseudokephyrion sp.	2	36
Chrysochromulina cf. parva	4	72
TOTAL	**91**	**1638**
400X magnification - 3 strips		
CHRYSOPHYCEAE		
Chrysolikos sp.	1	1
Diceras chodatii	2	1
Dinobryon sp.	23	13
Mallomonas spp.	1	1
Ochromonas spp. (8-10 um)	119	67
unidentified cyst	1	1
BACILLARIOPHYCEAE		
Achnanthes spp.	4	2
Cyclotella cf. stelligera/ocellata	3	2
Gomphonema sp. (30 um)	1	1
Melosira italica (fil)	5	3
Synedra sp. (small)	1	1
CHLOROPHYCEAE		
Oocystis sp. (cells+cols)	1	1
Gloeocystis sp. (cells + cols)	6	3
DINOPHYCEAE		
Gymnodinium sp.	1	1
CRYPTOPHYCEAE		
Cryptomonas spp.	23	13
Rhodomonas minuta	21	12
CYANOPHYCEAE		
Dactylococcopsis acicularis (cols)	21	12
TOTAL	**234**	**133**
100X magnification - half sample		
CHRYSOPHYCEAE		
Dinobryon cylindricum (110 col, 711 cells)	711	56.9
BACILLARIOPHYCEAE		
Synedra radians	3	0.24
Synedra ulna	3	0.24
TOTAL	**717**	**57.4**

Quinsam Lake Phytoplankton - 8 May 2024
Middle Quinsam Lake 1 m (CNH334-07, Job C432974)
27 ml sample settled

Total Cells Counted	**276**
Total Cells Per mL	**1,400**

	Number Counted	Cells per mL
1000X magnification - 50 fields		
CHRYSOPHYCEAE		
Ochromonas/Chromulina spp. (2-3 um)	44	792
Ochromonas/Chromulina spp. (4-5 um)	18	324
Ochromonas/Chromulina spp. (6-7 um)	6	108
Pseudokephyrion sp.	2	36
Chrysochromulina parva	1	18
TOTAL	**71**	**1278**
400X magnification - 2 strips		
CHRYSOPHYCEAE		
Dinobryon sp.	20	17
Ochromonas spp. (8-10 um)	142	121
BACILLARIOPHYCEAE		
Cyclotella glomerata (cells + cols)	2	2
Cyclotella cf. stelligera/ocellata	3	3
Melosira italica (fil)	1	1
Navicula sp. (40 um)	1	1
DINOPHYCEAE		
Peridinium sp.	1	1
CRYPTOPHYCEAE		
Cryptomonas spp.	5	4
Rhodomonas minuta	17	14
TOTAL	**192**	**163**
100X magnification - whole sample		
CHRYSOPHYCEAE		
Dinobryon cylindricum (1 col, 2 cells)	2	0.1
BACILLARIOPHYCEAE		
Navicula sp. (60 um)	1	0.04
Synedra radians	5	0.2
Synedra ulna	4	0.16
CHLOROPHYCEAE		
Closteriopsis sp.	1	0.04
TOTAL	**13**	**0.5**

Quinsam Lake Phytoplankton - 8 May 2024
No Name Lake 1 m (CNH376-07, Job C432979)
27 ml sample settled

Total Cells Counted	**501**
Total Cells Per mL	**990**

	Number Counted	Cells per mL
1000X magnification - 100 fields		
CHRYSOPHYCEAE		
Ochromonas/Chromulina spp. (2-A13 um)	50	450
Ochromonas/Chromulina spp. (4-5 um)	22	198
Ochromonas/Chromulina spp. (6-7 um)	15	135
Pseudokephyrion sp.	4	36
TOTAL	**91**	**819**
400X magnification - 4 strips		
CHRYSOPHYCEAE		
Chrysococcus paludosa (cells+cols)	1	0.4
Diceras chodati	1	0.4
Mallomonas spp.	53	23
Ochromonas spp. (8-10 um)	82	35
BACILLARIOPHYCEAE		
Achnanthes sp.	12	5
Melosira italica (fil)	10	4
Navicula spp. (25 um)	3	1
Synedra sp. (small)	3	1
CHLOROPHYCEAE		
Gloeocystis sp. (cells)	22	9
Oocystis sp. (cells + cols)	80	34
CRYPTOPHYCEAE		
Cryptomonas spp.	39	17
Rhodomonas minuta	72	31
CYANOPHYCEAE		
Dactylococcopsis acicularis (cols)	30	13
TOTAL	**408**	**173**
100X magnification - whole sample		
CHLOROPHYCEAE		
Botryococcus braunii (cols)	1	0.04
Closterium sp.	1	0.04
TOTAL	**2**	**0.1**

Quinsam Lake Phytoplankton - 8 May 2024
No Name Lake 1 m Replicate (CNH377-07, Job C432979)
27 ml sample settled

Total Cells Counted	**509**
Total Cells Per mL	**1,000**

	Number Counted	Cells per mL
1000X magnification - 100 fields		
CHRYSOPHYCEAE		
Ochromonas/Chromulina spp. (2-A13 um)	42	378
Ochromonas/Chromulina spp. (4-5 um)	32	288
Ochromonas/Chromulina spp. (6-7 um)	13	117
Pseudokephyrion sp.	5	45
TOTAL	**92**	**828**
400X magnification - 4 strips		
CHRYSOPHYCEAE		
Mallomonas spp.	73	31
Ochromonas spp. (8-10 um)	84	36
BACILLARIOPHYCEAE		
Achnanthes sp.	13	6
Melosira italica (fil)	10	4
Navicula spp. (25 um)	2	1
CHLOROPHYCEAE		
Gloeocystis sp. (cells)	14	6
Schroderia setigera	2	1
Oocystis sp. (cells + cols)	70	30
CRYPTOPHYCEAE		
Cryptomonas spp.	40	17
Rhodomonas minuta	83	35
CYANOPHYCEAE		
Dactylococcopsis acicularis (cols)	26	11
TOTAL	**417**	**177**
100X magnification - whole sample		
nothing visible		
TOTAL	**0**	**0**

Quinsam Lake Phytoplankton - 8 May 2023
Lower Quinsam Lake 1 m (CNH446-07, Job C432992)
27 ml sample settled

Total Cells Counted	**745**
Total Cells Per mL	**3,500**

	Number Counted	Cells per mL
1000X magnification - 25 fields		
CHRYSOPHYCEAE		
Ochromonas/Chromulina spp. (2-3 um)	40	1440
Ochromonas/Chromulina spp. (4-5 um)	22	792
Ochromonas/Chromulina spp. (6-7 um)	12	432
Pseudokephyrion sp.	6	216
Chrysochromulina parva	2	72
CHLOROPHYCEAE		
Oocystis sp. (5 x 3 um)	3	
TOTAL	**85**	**2952**
400X magnification - 1 strip		
CHRYSOPHYCEAE		
Chrysolikos sp.	2	3
Dinobryon sp.	33	56
Mallomonas sp.	1	2
Ochromonas spp. (8-10 um)	148	252
BACILLARIOPHYCEAE		
Achnanthes spp.	2	3
Cyclotella glomerata (cells + cols)	3	5
Melosira sp. (fil)	1	2
Synedra sp. (small)	1	2
CHLOROPHYCEAE		
Gloeocystis sp. (cols + cells)	3	5
Oocystis sp. (cells+cols)	1	2
Scenedesmus sp. (col)		1
Tetraedron sp.	1	
Tetraedron minimum	5	9
DINOPHYCEAE		
Gymnodinium sp.	18	31
Peeridinium sp.	2	3
CRYPTOPHYCEAE		
Cryptomonas spp.	48	82
Rhodomonas minuta	25	43
TOTAL	**294**	**499**
100X magnification - half sample		
CHRYSOPHYCEAE		
Dinobryon bavaricum (14 col, 23 cells)	23	1.8
Dinobryon cylindricum (4 cols, 36 cells)	36	2.9
Dinobryon sociale (50 cols, 298 cells)	298	23.8
BACILLARIOPHYCEAE		
Asterionella formosa (1 col, 5 cells)	5	0.4
Synedra ulna	3	0.2
Synedra radians	57	4.6
Tabellaria fenestrata (1 col, 3 cells)	3	0.2
TOTAL	**366**	**29**

Reference: **Quinsam Lakes Phytoplankton, May 2024 (Sample Reference CNH417-07, CNH334-07, CNH376-07, CNH377-07, CNH446-07; Job Numbers C432983, C432974, C432979, C432992)**

Attachment B Species Composition Data: May 2024

Quinsam Lake Phytoplankton - 8 May 2024
Long Lake 1 m (CNH417-07, Job C432983)
27 ml sample settled

Total Cells Counted	**1,042**
Total Cells Per mL	**1,800**

	Number Counted	Cells per mL
1000X magnification - 50 fields		
CHRYSOPHYCEAE		
Ochromonas/Chromulina spp. (2-3 um)	59	1062
Ochromonas/Chromulina spp. (4-5 um)	14	252
Ochromonas/Chromulina spp. (6-7 um)	12	216
Pseudokephyrion sp.	2	36
Chrysochromulina cf. parva	4	72
TOTAL	**91**	**1638**
400X magnification - 3 strips		
CHRYSOPHYCEAE		
Chrysolikos sp.	1	1
Diceras chodatii	2	1
Dinobryon sp.	23	13
Mallomonas spp.	1	1
Ochromonas spp. (8-10 um)	119	67
unidentified cyst	1	1
BACILLARIOPHYCEAE		
Achnanthes spp.	4	2
Cyclotella cf. stelligera/ocellata	3	2
Gomphonema sp. (30 um)	1	1
Melosira italica (fil)	5	3
Synedra sp. (small)	1	1
CHLOROPHYCEAE		
Oocystis sp. (cells+cols)	1	1
Gloeocystis sp. (cells + cols)	6	3
DINOPHYCEAE		
Gymnodinium sp.	1	1
CRYPTOPHYCEAE		
Cryptomonas spp.	23	13
Rhodomonas minuta	21	12
CYANOPHYCEAE		
Dactylococcopsis acicularis (cols)	21	12
TOTAL	**234**	**133**
100X magnification - half sample		
CHRYSOPHYCEAE		
Dinobryon cylindricum (110 col, 711 cells)	711	56.9
BACILLARIOPHYCEAE		
Synedra radians	3	0.24
Synedra ulna	3	0.24
TOTAL	**717**	**57.4**

Quinsam Lake Phytoplankton - 8 May 2024
Middle Quinsam Lake 1 m (CNH334-07, Job C432974)
27 ml sample settled

Total Cells Counted	**276**
Total Cells Per mL	**1,400**

	Number Counted	Cells per mL
1000X magnification - 50 fields		
CHRYSOPHYCEAE		
Ochromonas/Chromulina spp. (2-3 um)	44	792
Ochromonas/Chromulina spp. (4-5 um)	18	324
Ochromonas/Chromulina spp. (6-7 um)	6	108
Pseudokephyrion sp.	2	36
Chrysochromulina parva	1	18
TOTAL	**71**	**1278**
400X magnification - 2 strips		
CHRYSOPHYCEAE		
Dinobryon sp.	20	17
Ochromonas spp. (8-10 um)	142	121
BACILLARIOPHYCEAE		
Cyclotella glomerata (cells + cols)	2	2
Cyclotella cf. stelligera/ocellata	3	3
Melosira italica (fil)	1	1
Navicula sp. (40 um)	1	1
DINOPHYCEAE		
Peridinium sp.	1	1
CRYPTOPHYCEAE		
Cryptomonas spp.	5	4
Rhodomonas minuta	17	14
TOTAL	**192**	**163**
100X magnification - whole sample		
CHRYSOPHYCEAE		
Dinobryon cylindricum (1 col, 2 cells)	2	0.1
BACILLARIOPHYCEAE		
Navicula sp. (60 um)	1	0.04
Synedra radians	5	0.2
Synedra ulna	4	0.16
CHLOROPHYCEAE		
Closteriopsis sp.	1	0.04
TOTAL	**13**	**0.5**

Quinsam Lake Phytoplankton - 8 May 2024
No Name Lake 1 m (CNH376-07, Job C432979)
27 ml sample settled

Total Cells Counted	**501**
Total Cells Per mL	**990**

	Number Counted	Cells per mL
1000X magnification - 100 fields		
CHRYSOPHYCEAE		
Ochromonas/Chromulina spp. (2-A13 um)	50	450
Ochromonas/Chromulina spp. (4-5 um)	22	198
Ochromonas/Chromulina spp. (6-7 um)	15	135
Pseudokephyrion sp.	4	36
TOTAL	**91**	**819**
400X magnification - 4 strips		
CHRYSOPHYCEAE		
Chrysococcus paludosa (cells+cols)	1	0.4
Diceras chodati	1	0.4
Mallomonas spp.	53	23
Ochromonas spp. (8-10 um)	82	35
BACILLARIOPHYCEAE		
Achnanthes sp.	12	5
Melosira italica (fil)	10	4
Navicula spp. (25 um)	3	1
Synedra sp. (small)	3	1
CHLOROPHYCEAE		
Gloeocystis sp. (cells)	22	9
Oocystis sp. (cells + cols)	80	34
CRYPTOPHYCEAE		
Cryptomonas spp.	39	17
Rhodomonas minuta	72	31
CYANOPHYCEAE		
Dactylococcopsis acicularis (cols)	30	13
TOTAL	**408**	**173**
100X magnification - whole sample		
CHLOROPHYCEAE		
Botryococcus braunii (cols)	1	0.04
Closterium sp.	1	0.04
TOTAL	**2**	**0.1**

Quinsam Lake Phytoplankton - 8 May 2024
No Name Lake 1 m Replicate (CNH377-07, Job C432979)
27 ml sample settled

Total Cells Counted	**509**
Total Cells Per mL	**1,000**

	Number Counted	Cells per mL
1000X magnification - 100 fields		
CHRYSOPHYCEAE		
Ochromonas/Chromulina spp. (2-A13 um)	42	378
Ochromonas/Chromulina spp. (4-5 um)	32	288
Ochromonas/Chromulina spp. (6-7 um)	13	117
Pseudokephyrion sp.	5	45
TOTAL	**92**	**828**
400X magnification - 4 strips		
CHRYSOPHYCEAE		
Mallomonas spp.	73	31
Ochromonas spp. (8-10 um)	84	36
BACILLARIOPHYCEAE		
Achnanthes sp.	13	6
Melosira italica (fil)	10	4
Navicula spp. (25 um)	2	1
CHLOROPHYCEAE		
Gloeocystis sp. (cells)	14	6
Schroderia setigera	2	1
Oocystis sp. (cells + cols)	70	30
CRYPTOPHYCEAE		
Cryptomonas spp.	40	17
Rhodomonas minuta	83	35
CYANOPHYCEAE		
Dactylococcopsis acicularis (cols)	26	11
TOTAL	**417**	**177**
100X magnification - whole sample		
nothing visible		
TOTAL	**0**	**0**

Quinsam Lake Phytoplankton - 8 May 2023
Lower Quinsam Lake 1 m (CNH446-07, Job C432992)
27 ml sample settled

Total Cells Counted	**745**
Total Cells Per mL	**3,500**

	Number Counted	Cells per mL
1000X magnification - 25 fields		
CHRYSOPHYCEAE		
Ochromonas/Chromulina spp. (2-3 um)	40	1440
Ochromonas/Chromulina spp. (4-5 um)	22	792
Ochromonas/Chromulina spp. (6-7 um)	12	432
Pseudokephyrion sp.	6	216
Chrysochromulina parva	2	72
CHLOROPHYCEAE		
Oocystis sp. (5 x 3 um)	3	
TOTAL	**85**	**2952**
400X magnification - 1 strip		
CHRYSOPHYCEAE		
Chrysolikos sp.	2	3
Dinobryon sp.	33	56
Mallomonas sp.	1	2
Ochromonas spp. (8-10 um)	148	252
BACILLARIOPHYCEAE		
Achnanthes spp.	2	3
Cyclotella glomerata (cells + cols)	3	5
Melosira sp. (fil)	1	2
Synedra sp. (small)	1	2
CHLOROPHYCEAE		
Gloeocystis sp. (cols + cells)	3	5
Oocystis sp. (cells+cols)	1	2
Scenedesmus sp. (col)		1
Tetraedron sp.	1	
Tetraedron minimum	5	9
DINOPHYCEAE		
Gymnodinium sp.	18	31
Peeridinium sp.	2	3
CRYPTOPHYCEAE		
Cryptomonas spp.	48	82
Rhodomonas minuta	25	43
TOTAL	**294**	**499**
100X magnification - half sample		
CHRYSOPHYCEAE		
Dinobryon bavaricum (14 col, 23 cells)	23	1.8
Dinobryon cylindricum (4 cols, 36 cells)	36	2.9
Dinobryon sociale (50 cols, 298 cells)	298	23.8
BACILLARIOPHYCEAE		
Asterionella formosa (1 col, 5 cells)	5	0.4
Synedra ulna	3	0.2
Synedra radians	57	4.6
Tabellaria fenestrata (1 col, 3 cells)	3	0.2
TOTAL	**366**	**29**

Reference: **Quinsam Lakes Phytoplankton, May 2024 (Sample Reference CNH417-07, CNH334-07, CNH376-07, CNH377-07, CNH446-07; Job Numbers C432983, C432974, C432979, C432992)**

Attachment C Chain of Custody: May 2024

Sent To: Stantec Consulting Ltd.
Suite 500 4730 Kingsway
Burnaby, BC, V5H 0C6
Tel: (604) 436-3014

CHAIN OF CUSTODY RECORD FOR SUBCONTRACTED WORK

COC # C432974-V01A-01-01

REPORT INFORMATION

Company:	Bureau Veritas Laboratories
Address:	4606 Canada Way, Burnaby, British Columbia, V5G 1K5
Contact Name:	Atikin Hehn
Email:	Atikin.Hehn@bureauveritas.com, Customersolutionswest@bureauveritas.com
Phone:	
BV Labs Project #:	C432974

ANALYSIS REQUESTED

#	SAMPLE ID	MATRIX	DATE SAMPLED (YYYY/MM/DD)	TIME SAMPLED (HH:MM)	SAMPLER INITIALS	# CONT.	Algae Species Count and ID SubC	ADDITIONAL SAMPLE INFORMATION
1	CNH334-MQL1-8MAY24-M	WATER	2024/05/08		KR	1	X	(P: 07)
2								
3								
4								
5								
6								
7								
8								
9								
10								

REGULATORY CRITERIA

SPECIAL INSTRUCTIONS

Please inform Bureau Veritas immediately if you are not accredited for the requested test(s) or the hold time is approaching.
Please return a copy of this form with the report.

TURNAROUND TIME

☐ Rush Required

2024/06/21
Date Required

Please inform us if rush charges will be incurred.

COOLER ID:

	YES	NO
Custody Seal Present		
Custody Seal Intact		
Cooling Media Present		

Temp: (°C) 1 2 3

COOLER ID:

	YES	NO
Custody Seal Present		
Custody Seal Intact		
Cooling Media Present		

Temp: (°C) 1 2 3

COOLER ID:

	YES	NO
Custody Seal Present		
Custody Seal Intact		
Cooling Media Present		

Temp: (°C) 1 2 3

RELINQUISHED BY: (SIGN & PRINT)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (SIGN & PRINT)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)
elanie Caoili	20247/05/10	15:00	1. K. Munro	2024/05/22	3pm
K. Munro	2024/05/22	3:00	2.		

Sent To: Stantec Consulting Ltd.
Suite 500 4730 Kingsway
Burnaby, BC, V5H 0C6
Tel: (604) 436-3014

CHAIN OF CUSTODY RECORD FOR SUBCONTRACTED WORK

COC # C432992-VSTA-01-01

REPORT INFORMATION

Company:	Bureau Veritas Laboratories
Address:	4606 Canada Way, Burnaby, British Columbia, V5G 1K5
Contact Name:	Atikin Hehn
Email:	Atikin.Hehn@bureauveritas.com, Customersolutionswest@bureauveritas.com
Phone:	
BV Labs Project #:	C432992

#	SAMPLE ID	MATRIX	DATE SAMPLED (YYYY/MM/DD)	TIME SAMPLED (HH:MM)	SAMPLER INITIALS	# CONT.	ANALYSIS REQUESTED: Algae Species Count and ID SubC	ADDITIONAL SAMPLE INFORMATION
1	CNH446-LQL1-8MAY24-M	WATER	2024/05/08		KR	1	X	(P: 07)
2								
3								
4								
5								
6								
7								
8								
9								
10								

REGULATORY CRITERIA

SPECIAL INSTRUCTIONS

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Please return a copy of this form with the report.

TURNAROUND TIME

☐ Rush Required

2024/06/21
Date Required

Please inform us if rush charges will be incurred.

COOLER ID:

	YES	NO
Custody Seal Present		
Custody Seal Intact		
Cooling Media Present		

Temp: (°C) 1 2 3

COOLER ID:

	YES	NO
Custody Seal Present		
Custody Seal Intact		
Cooling Media Present		

Temp: (°C) 1 2 3

COOLER ID:

	YES	NO
Custody Seal Present		
Custody Seal Intact		
Cooling Media Present		

Temp: (°C) 1 2 3

RELINQUISHED BY: (SIGN & PRINT)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (SIGN & PRINT)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)
KSON WONG	2024/05/10	15:00	1. K Mann	2024/05/22	3:00
			2.		

Sent To: Stantec Consulting Ltd.
Suite 500 4730 Kingsway
Burnaby, BC, V5H 0C6
Tel: (604) 436-3014

CHAIN OF CUSTODY RECORD FOR SUBCONTRACTED WORK

COC # C432983-V5TA-01-01

REPORT INFORMATION

Company:	Bureau Veritas Laboratories
Address:	4606 Canada Way, Burnaby, British Columbia, V5G 1K5
Contact Name:	Atikin Hehn
Email:	Atikin.Hehn@bureauveritas.com, Customersolutionswest@bureauveritas.com
Phone:	
BV Labs Project #:	C432983

ANALYSIS REQUESTED

#	SAMPLE ID	MATRIX	DATE SAMPLED (YYYY/MM/DD)	TIME SAMPLED (HH:MM)	SAMPLER INITIALS	# CONT.	Algae Species Count and ID SubC	ADDITIONAL SAMPLE INFORMATION
1	CNH417-LLM1-8MAY24-M	WATER	2024/05/08		KR	1	X	(P: 07)
2								
3								
4								
5								
6								
7								
8								
9								
10								

REGULATORY CRITERIA

SPECIAL INSTRUCTIONS

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Please return a copy of this form with the report.

TURNAROUND TIME

☐ Rush Required

2024/06/21
Date Required

Please inform us if rush charges will be incurred.

COOLER ID:

	YES	NO
Custody Seal Present		
Custody Seal Intact		
Cooling Media Present		

Temp: (°C) 1 2 3

COOLER ID:

	YES	NO
Custody Seal Present		
Custody Seal Intact		
Cooling Media Present		

Temp: (°C) 1 2 3

COOLER ID:

	YES	NO
Custody Seal Present		
Custody Seal Intact		
Cooling Media Present		

Temp: (°C) 1 2 3

RELINQUISHED BY: (SIGN & PRINT)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (SIGN & PRINT)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)
1. DICKSON WONG	2024/05/10	15:00	1.	2024/05/22	3:00
2.			2.		

Sent To: **Stantec Consulting Ltd.**
Suite 500 4730 Kingsway
Burnaby, BC, V5H 0C6
Tel: (604) 436-3014

CHAIN OF CUSTODY RECORD FOR SUBCONTRACTED WORK

COC # C432979-VSTA-01-01

REPORT INFORMATION

Company:	Bureau Veritas Laboratories
Address:	4606 Canada Way, Burnaby, British Columbia, V5G 1K5
Contact Name:	Atikin Hehn
Email:	Atikin.Hehn@bureauveritas.com, Customersolutionswest@bureauveritas.com
Phone:	
BV Labs Project #:	C432979

ANALYSIS REQUESTED

#	SAMPLE ID	MATRIX	DATE SAMPLED (YYYY/MM/DD)	TIME SAMPLED (HH:MM)	SAMPLER INITIALS	# CONT.	Algae Species Count and ID SubC	ADDITIONAL SAMPLE INFORMATION
1	CNH376-NNL1-8MAY24-M	W	2024/05/08		KR	1	X	(P: 07)
2	CNH377-NNL1-8MAY24-R	W	2024/05/08		KR	1	X	(P: 07)
3								
4								
5								
6								
7								
8								
9								
10								

REGULATORY CRITERIA

SPECIAL INSTRUCTIONS

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Please return a copy of this form with the report.

TURNAROUND TIME

☐ Rush Required

2024/06/21
Date Required

Please inform us if rush charges will be incurred.

COOLER ID:	YES	NO	Temp: (°C)			
Custody Seal Present						
Custody Seal Intact						
Cooling Media Present						

COOLER ID:	YES	NO	Temp: (°C)			
Custody Seal Present						
Custody Seal Intact						
Cooling Media Present						

COOLER ID:	YES	NO	Temp: (°C)			
Custody Seal Present						
Custody Seal Intact						
Cooling Media Present						

RELINQUISHED BY: (SIGN & PRINT)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (SIGN & PRINT)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)
DICKSON WONG	2024/05/10	15:00	1. K Munn	2024/05/22	3pm
			2.		

Freshwater Zooplankton Enumeration and Identification Methods
Client: Quinsam Coal Corp
Project: Quinsam Lakes Batch 1

Sample Inventory

Sample arrival: 17-May-2024
Number of samples: 5
Number of jars: 5
Screen size: 63 µm
Biologica project number: 24-123

Upon arrival, the samples were examined and double-checked against the chain of custody to ensure that (1) all samples were accounted for, and (2) each sample had the appropriate number of jars as indicated on the COC. Any discrepancies were reported to the client and were resolved before further sample handling. Samples were transferred from formalin into 70% ethanol and assigned a unique identification number. For processing, samples were analyzed in water and then transferred back into 10% Formalin for storage.

Sample Processing

Freshwater zooplankton samples were analyzed in two fractions as follows:

(1) A “Coarse” fraction comprised of cladocerans, adult copepods, and copepedids, in which a minimum count of 200 organisms was obtained; and

(2) A “Fine” or “Micro” fraction, in which only copepod nauplii and rotifers were identified and enumerated. Processing of the micro fraction was completed to either a 100-count or a maximum of three sub-samples. The Micro fraction was analyzed using a 1-mL Sedgewick-Rafter counting chamber.

The Coarse fraction was analyzed in a Bogorov tray through a stereo microscope at 10-40x magnification. All organisms were identified by taxonomic experts to the lowest taxonomic level using a compound microscope (100–400x magnification), appropriate dissection tools, and standard taxonomic references. For copepods, the stage of development was also recorded (copepodite stages I-V) as is the sex for mature individuals (copepod stage VI).

Sub-sampling for all fractions was performed using Hensen-Stempel pipettes.

Zooplankton were identified to species wherever possible, although immature copepods lack differentiating features required for identification beyond order (e.g., Calanoida, Cyclopoida, or Harpacticoida). All identifications were performed using taxonomic references and collaborations with external experts, where necessary.

Table 1. Summary of zooplankton samples processed for Quinsam Coal Corp, Quinsam Lakes Batch 1, 2024.

Client Sample ID	Date Sampled	Biologica Sample ID	Fraction	Split	Specimens Counted
LLM1-8May24-M	8-May-24	fz24-123-001	Fine	2/50	108
			Coarse	14/50	227
NNL1-8May24-M	8-May-24	fz24-123-002	Fine	2/50	111
			Coarse	8/50	225
NNL1-8May24-R	8-May-24	fz24-123-003	Fine	3/50	142
			Coarse	12/50	231
MQL1-8May24-M	8-May-24	fz24-123-004	Fine	2/50	132
			Coarse	Whole	380
LQL1-8May24-M	8-May-24	fz24-123-005	Fine	1/50	119
			Coarse	7/50	317

QA/QC

Ten percent (10%) of samples (1 sample) was reanalyzed to assess sub-sampling accuracy and taxonomic consistency. The sample was chosen at random and processed at different times to reduce counting and identification bias. The percent agreement between QA samples is reported in Table 2.

Table 2. Summary of enumeration QA/QC results for Quinsam Coal Corp, Quinsam Lakes, 2024.

Client Sample ID	Biologica Sample ID	Total Original Density (#/L)	Total QA Density (#/L)	Percent Agreement
NNL1-8May24-M	fz24-123-002	33.01	29.31	88.79

Percent Agreement:
100 – [(difference in density between samples/total density of original sample) x 100]

Data

Densities (#/L) were calculated using the net diameter, 5” (or 12.70 cm), and tow depth (m).

Taxonomic data were recorded in Biologica’s custom database. Results were provided to the Quinsam Coal Corp project manager in Excel spreadsheets via email.

Methodological and Taxonomic References

Anderson RS. 1967. Diaptomid copepods from two mountain ponds in Alberta. Can. J. Zool., 45: 1043–1047.

Anderson RS. 1970. *Diaptomus* (*Leptodiaptomus*) *connexus* Light 1938 in Alberta and Saskatchewan. Can. J. Zool. 48: 4147.

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McCauley E. 1984. Chapter 7. The estimation of the abundance and biomass of zooplankton in samples. In: Downing, J.A. and Rigler, F.H. (eds.) A manual on methods for the assessment of secondary production in fresh waters.-2nd edition. IBP Handbook 17. Blackwell Scientific Publications. Smith, D.G. 2001. *Pennak's Freshwater Invertebrates of the United States*, 4th ed. John Wiley and Sons. 664 p.

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Thorp JH, Covich AP. 2000. *Ecology and Classification of Freshwater Invertebrates*. Academic Press, San Diego and New York. 936 p.

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Wilson MS. 1951. Some significant points in the distribution of Alaskan fresh-water Copepod Crustacea. Proc. 2nd Alaskan Sci. Conf. 1951: 315–318.

Wilson MS. 1953. New and inadequately known North American species of the copepod genus *Diaptomus*. Smithsonian Misc. Coll. 122(2): 1–30.

Wilson MS. 1959. Calanoida, pp. 738–794. In: W.T. Edmondson (ed.). Fresh-Water Biology, 2nd ed. John Wiley & Sons, New York.

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Abbreviations & Definitions

Worksheets:

1. Abbreviations & Definitions	Glossary of terms and outline of report
2. Matrix-Abundance	Abundance data in matrix format, including total abundance per sample
2. Matrix-Density	Density (#/L) data in matrix format, including total density per sample
4. Data-Long	Abundance and biomass data in long format with average taxon biomass inserted in order to calculate total biomass and abundan
5. QA-QC	Quality control report of zooplankton enumeration in QA samples

Abundance Data:

Total Number of Taxa	Number of unique taxa (=species richness), not including higher-order taxa for which there exists a lower-order identification.
Total Number of Organisms	Total Abundance, not including incidental taxa
Presence	Taxa not enumerated in sample
#/sample	Count data converted to "per sample" total value

Life Stages:

Nauplius	Crustacean early larval stage

Copepods:

III	Copepodite stage 3: juvenile copepod stage occurring 2 moults after naupliar stages, generally with 3 abdominal segments
IV	Copepodite stage 4: juvenile copepod stage occurring 3 moults after naupliar stages, generally with 4 abdominal segments
I-IV	Copepodite stage 1-4: juvenile copepod stages occurring up to 3 moults after naupliar stages
I-V	Copepodite stage 1-5: juvenile copepod stages occurring up to 4 moults after naupliar stages
V	Copepodite stage 5: juvenile copepod stage occurring 4 moults after naupliar stages, generally with 5 abdominal segments
VIf	Copepod (adult) stage 6: reproductive adult copepod stage, generally with 6 abdominal segments, female
VIm	Copepod (adult) stage 6: reproductive adult copepod stage, generally with 6 abdominal segments, male

Rotifers:

Individual	Non-colonial rotifer
Colony	Colonial rotifer

Cladocerans:

J	Juvenile
F	Adult female
M	Adult male
A	Adult (sex not determined)

Dipterans:

L	Larva

Biomass Measurements:

WW	Wet weight
DW	Dry weight
mg/sample	milligrams per sample

Crustaceans:	$\ln(W) = \ln(\alpha) + \beta \ln(L)$
W	Dry weight estimate (mg)
α	Species-specific constant in biomass estimation formula for copepods (intercept) (sources in reference column)
β	Species-specfic constant in biomass estimation formula for copepods (slope) (sources in reference column)
L	Length (mm)

Rotifers:	Rotifer biomass (µg DW) = $(\text{length}^3 \times FF) + (\%BV \times \text{length}^3 \times FF) \times 10^{-6} \times WW{:}DW$

Rotifer biomass (µg DW) = $(\text{length}^3 \times FF) + (\%BV \times \text{length}^3 \times FF) \times 10^{-6} \times WW{:}DW$

Collotheca biomass (µg DW) = $(\text{width}^3 \times FF) \times 10^{-6} \times WW : DW$

Conochiloides, Conochilus, Filinia, and Trichocerca biomass (µg) = $[(\text{length} \times \text{width}^2 \times FF) + (\%BV \times \text{length} \times \text{width}^2 \times FF)] \times 10^{-6} \times WW : DW$

length	total length (µm)
width	total width (µm)
FF	Species-specific constant for calculation of biomass in rotifers, source of values in reference column
%BV	Species-specific volume of appendages as a percent of body biovolume, source of values in reference column

Biologica Coding

Major Taxonomic Groups:

Taxa Group	Group Code	Taxonomic Group
Annelida	ANHI	Annelida Hirudinea
Annelida	ANOL	Annelida Oligochaeta
Annelida	ANXX	Annelida
Annelida	POER	Polychaeta Errantia
Annelida	POSE	Polychaeta Sedentaria
Annelida	POXX	Polychaeta
Arthropoda	CHAR	Chelicerata Arachnida (Acari)
Arthropoda	CHPY	Chelicerata Pycnogonida
Arthropoda	CHXX	Chelicerata
Arthropoda	CRAM	Crustacea Amphipoda
Arthropoda	CRCI	Crustacea Cirripedia
Arthropoda	CRCL	Crustacea Cladocera
Arthropoda	CRCO	Crustacea Copepoda
Arthropoda	CRCU	Crustacea Cumacea
Arthropoda	CRDE	Crustacea Decapoda
Arthropoda	CRDI	Crustacea Diplostraca
Arthropoda	CREU	Crustacea Euphausiacea
Arthropoda	CRIS	Crustacea Isopoda
Arthropoda	CRLE	Crustacea Leptostraca
Arthropoda	CRMY	Crustacea Mysidacea
Arthropoda	CROS	Crustacea Ostracoda
Arthropoda	CRTA	Crustacea Tanaidacea
Arthropoda	CRXX	Crustacea
Arthropoda	INCM	Insecta Collembola
Arthropoda	INCO	Insecta Coleoptera
Arthropoda	INDI	Insecta Diptera
Arthropoda	INEP	Insecta Ephemeroptera
Arthropoda	INHM	Insecta Hemiptera
Arthropoda	INHY	Insecta Hymenoptera
Arthropoda	INLE	Insecta Lepidoptera
Arthropoda	INMG	Insecta Megaloptera
Arthropoda	INNE	Insecta Neuroptera
Arthropoda	INOD	Insecta Odonata
Arthropoda	INPL	Insecta Plecoptera
Arthropoda	INTH	Insecta Thysanoptera
Arthropoda	INTR	Insecta Tricoptera
Arthropoda	INXX	Insecta
Arthropoda	MYCH	Chilopoda
Arthropoda	MYDI	Diplopoda
Echinodermata	ECAS	Echinodermata Asteroidea
Echinodermata	ECCR	Echinodermata Crinoidea
Echinodermata	ECEC	Echinodermata Echinoidea
Echinodermata	ECHO	Echinodermata Holothuroidea
Echinodermata	ECOP	Echinodermata Ophiuroidea
Miscellaneous	ACAN	Acanthocephala
Miscellaneous	AMPH	Amphibia
Miscellaneous	BRAC	Brachiopoda
Miscellaneous	BRYO	Bryozoa
Miscellaneous	CHAE	Chaetognatha
Miscellaneous	CILI	Ciliophora Ciliophora
Miscellaneous	CNAN	Cnidaria Anthozoa
Miscellaneous	CNHY	Cnidaria Hydrozoa
Miscellaneous	CNSC	Cnidaria Scyphozoa
Miscellaneous	CNXX	Cnidaria
Miscellaneous	CTEN	Ctenophora
Miscellaneous	ENTO	Entoprocta
Miscellaneous	EURA	Echiura
Miscellaneous	FORA	Foraminifera
Miscellaneous	HEMI	Hemichordata
Miscellaneous	KINO	Kinorhyncha
Miscellaneous	NODA	Nemata
Miscellaneous	NTEA	Nemertea
Miscellaneous	PHOR	Phoronida
Miscellaneous	PIXX	Pisces
Miscellaneous	PLTY	Platyhelminthes
Miscellaneous	PORI	Porifera
Miscellaneous	PRIA	Priapulida
Miscellaneous	ROTI	Rotifera
Miscellaneous	SIPN	Sipuncula
Miscellaneous	TARD	Tardigrada
Miscellaneous	URAP	Appendicularia
Miscellaneous	URAS	Ascidiacea
Miscellaneous	URTH	Thaliacea
Mollusca	MOAP	Mollusca Aplacophora
Mollusca	MOBI	Mollusca Bivalvia
Mollusca	MOCE	Mollusca Cephalopoda
Mollusca	MOGA	Mollusca Gastropoda
Mollusca	MOPO	Mollusca Polyplacophora
Mollusca	MOSC	Mollusca Scaphopoda
Mollusca	MOXX	Mollusca

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		Grand Total		fz24-123-001 LLM 08-May-24	fz24-123-002 NNL 08-May-24	fz24-123-003 NNL Rep 08-May-24	fz24-123-004 MQL 08-May-24	fz24-123-005 LQL 08-May-24	fz24-123-002_QA NNL1 QA 08-May-24
				Total Abundance					
Taxon	**Stage**	**Total Unique Taxa**	**Total Abundance (#/sample)**	**(#/sample)**	**(#/sample)**	**(#/sample)**	**(#/sample)**	**(#/sample)**	**(#/sample)**
Bosmina longirostris	A	1	68	68					
Bosminidae indet.	A		79					79	69
Eubosmina longispina	A	1	80		56	4	20		
Alona sp.	A	1	9				2	7	
Chydorus sphaericus	A	1	2				2		
Daphnia sp.	A	1	1,815	264	769	525	221	36	825
Holopedium gibberum	A	1	407	7	244	138	11	7	119
Diaphanosoma sp.	A	1	21		6			14	
Total Cladocera			**2,480**	**339**	**1,075**	**667**	**256**	**143**	**1,013**
Diaptomidae indet.	VIf		11	4	6		1		6
Diaptomidae indet.	VIm		0						6
Hesperodiaptomus sp.	VIf	1	7			4	3		
Hesperodiaptomus sp.	VIm		8			4	4		
Skistodiaptomus oregonensis	VIf	1	8			8			
Skistodiaptomus oregonensis	VIm		8			8			
Calanoida indet.	I-V		448	129	163	108	34	14	100
Total Calanoida indet.			**491**	**132**	**169**	**133**	**42**	**14**	**113**
Diacyclops thomasi	VIf	1	66	18	6	4	38		13
Diacyclops thomasi	VIm		51	11			19	21	
Cyclopoida indet.	I-V		2,736	311	156	158	25	2,086	150
Total Cyclopoida			**2,853**	**339**	**163**	**163**	**82**	**2,107**	**163**
Calanoida indet.	Nauplius		1,433	225	475	333	250	150	375
Cyclopoida indet.	Nauplius		5,658	725	600	483	2,650	1,200	475
Total Copepod Nauplii			**7,092**	**950**	**1,075**	**817**	**2,900**	**1,350**	**850**
Total Crustacean Zooplankton			**12,915**	**1,761**	**2,481**	**1,779**	**3,280**	**3,614**	**2,138**
Asplanchna sp.	Individual	1	25	25					
Kellicottia longispina	Individual	1	358	75	75	33	75	100	200
Keratella sp. 1	Individual	1	1,067	250	75	17	75	650	75
Keratella sp. 2	Individual	1	200	100			50	50	
Conochilus sp.	Colony		467			17		450	
Conochilus sp.	Individual	1	3,975		1,425	1,450	100	1,000	1,175
Gastropus sp.	Individual		25	25					
Gastropus stylifer	Individual	1	367			17	50	300	25
Polyarthra sp.	Individual	1	1,317	825	100	17	25	350	100
Synchaeta sp.	Individual	1	75	50			25		
Trichocerca sp.	Individual	1	50	50					
Ploima indet.	Individual		2,075	350	25			1,700	
Total Rotifera			**10,000**	**1,750**	**1,700**	**1,550**	**400**	**4,600**	**1,575**
Total Zooplankton			**22,915**	**3,511**	**4,181**	**3,329**	**3,680**	**8,214**	**3,713**
Total Unique Taxa		**19**		**13**	**10**	**11**	**14**	**13**	**10**

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Zooplankton total density (#/L) data matrix for Quinsam Coal Corp, Quinsam Lakes Batch 1, 2024.

Biologica Sample ID					Grand Total	fz24-123-001	fz24-123-002	fz24-123-003	fz24-123-004	fz24-123-005	fz24-123-002_QA
Client Sample ID						LLM	NNL	NNL Rep	MQL	LQL	NNL1 QA
Date Sampled						08-May-24	08-May-24	08-May-24	08-May-24	08-May-24	08-May-24
					Total	Total Density			Total Density		
Groupcode	Major Group	Family	Taxon	Stage	Unique Taxa	(#/L)	(#/L)	(#/L)	(#/L)	(#/L)	(#/L)
CRCL	Crustacea Cladocera	Bosminidae	Bosmina longirostris	A	1	0.54	0.54				
CRCL	Crustacea Cladocera	Bosminidae	Bosminidae indet.	A		0.62				0.62	0.54
CRCL	Crustacea Cladocera	Bosminidae	Eubosmina longispina	A	1	0.63		0.44	0.03	0.16	
CRCL	Crustacea Cladocera	Chydoridae	Alona sp.	A	1	0.07				0.02	0.06
CRCL	Crustacea Cladocera	Chydoridae	Chydorus sphaericus	A	1	0.02				0.02	
CRCL	Crustacea Cladocera	Daphniidae	Daphnia sp.	A	1	14.33	2.09	6.07	4.14	1.74	0.28	6.51
CRCL	Crustacea Cladocera	Holopediidae	Holopedium gibberum	A	1	3.21	0.06	1.92	1.09	0.09	0.06	0.94
CRCL	Crustacea Cladocera	Sididae	Diaphanosoma sp.	A	1	0.16		0.05			0.11	
			Total Cladocera			**19.58**	**2.68**	**8.49**	**5.26**	**2.02**	**1.13**	**7.99**
CRCO	Crustacea Copepoda Calanoida	Diaptomidae	Diaptomidae indet.	VIf		0.09	0.03	0.05		0.01		0.05
CRCO	Crustacea Copepoda Calanoida	Diaptomidae	Diaptomidae indet.	VIm		0.00						0.05
CRCO	Crustacea Copepoda Calanoida	Diaptomidae	Hesperodiaptomus sp.	VIf	1	0.06			0.03	0.02		
CRCO	Crustacea Copepoda Calanoida	Diaptomidae	Hesperodiaptomus sp.	VIm		0.06			0.03	0.03		
CRCO	Crustacea Copepoda Calanoida	Diaptomidae	Skistodiaptomus oregonensis	VIf	1	0.07			0.07			
CRCO	Crustacea Copepoda Calanoida	Diaptomidae	Skistodiaptomus oregonensis	VIm		0.07			0.07			
CRCO	Crustacea Copepoda Calanoida		Calanoida indet.	I-V		3.53	1.01	1.28	0.86	0.27	0.11	0.79
			Total Calanoida indet.			**3.87**	**1.04**	**1.33**	**1.05**	**0.33**	**0.11**	**0.89**
CRCO	Crustacea Copepoda Cyclopoida	Cyclopidae	Diacyclops thomasi	VIf	1	0.52	0.14	0.05	0.03	0.30		0.10
CRCO	Crustacea Copepoda Cyclopoida	Cyclopidae	Diacyclops thomasi	VIm		0.40	0.08			0.15	0.17	
CRCO	Crustacea Copepoda Cyclopoida		Cyclopoida indet.	I-V		21.60	2.45	1.23	1.25	0.20	16.46	1.18
			Total Cyclopoida			**22.53**	**2.68**	**1.28**	**1.28**	**0.65**	**16.63**	**1.28**
CRCO	Crustacea Copepoda Calanoida		Calanoida indet.	Nauplius		11.31	1.78	3.75	2.63	1.97	1.18	2.96
CRCO	Crustacea Copepoda Cyclopoida		Cyclopoida indet.	Nauplius		44.67	5.72	4.74	3.82	20.92	9.47	3.75
			Total Copepod Nauplii			**55.98**	**7.50**	**8.49**	**6.45**	**22.89**	**10.66**	**6.71**
			Total Crustacean Zooplankton			**101.96**	**13.90**	**19.59**	**14.04**	**25.89**	**28.53**	**16.87**
ROTI	Rotifera	Asplanchnidae	Asplanchna sp.	Individ	1	0.20	0.20					
ROTI	Rotifera	Brachionidae	Kellicottia longispina	Individ	1	2.83	0.59	0.59	0.26	0.59	0.79	1.58
ROTI	Rotifera	Brachionidae	Keratella sp. 1	Individ	1	8.42	1.97	0.59	0.13	0.59	5.13	0.59
ROTI	Rotifera	Brachionidae	Keratella sp. 2	Individ	1	1.58	0.79			0.39	0.39	
ROTI	Rotifera	Conochilidae	Conochilus sp.	Colony		3.68			0.13		3.55	
ROTI	Rotifera	Conochilidae	Conochilus sp.	Individ	1	31.38		11.25	11.45	0.79	7.89	9.28
ROTI	Rotifera	Gastropodidae	Gastropus sp.	Individual		0.20	0.20					
ROTI	Rotifera	Gastropodidae	Gastropus stylifer	Individ	1	2.89			0.13	0.39	2.37	0.20
ROTI	Rotifera	Synchaetidae	Polyarthra sp.	Individ	1	10.39	6.51	0.79	0.13	0.20	2.76	0.79
ROTI	Rotifera	Synchaetidae	Synchaeta sp.	Individ	1	0.59	0.39			0.20		
ROTI	Rotifera	Trichocercidae	Trichocerca sp.	Individ	1	0.39	0.39					
ROTI	Rotifera		Ploima indet.	Individual		16.38	2.76	0.20			13.42	
			Total Rotifera			**78.94**	**13.81**	**13.42**	**12.24**	**3.16**	**36.31**	**12.43**
			Total Zooplankton			**180.90**	**27.71**	**33.01**	**26.28**	**29.05**	**64.84**	**29.31**
			Total Unique Taxa		**19**		**13**	**10**	**11**	**14**	**13**	**10**

Zooplankton raw count data for abundance and biomass calculations for Quinsam Coal Corp, Quinsam Lakes Batch 1, 2024

Client	Project	Year	Biologica Sample ID	Client Sample ID	Site Name	FES Sample Number	Date Sampled	Batch	Net Radius (cm)	Tow Length (m)	Split	Fraction	Groupcode
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-001	LLM1-8May24-M	LLM1	n/a	8-May-24	1	6.35	10	14/50	Coarse	CRCL
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-001	LLM1-8May24-M	LLM1	n/a	8-May-24	1	6.35	10	14/50	Coarse	CRCL
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-001	LLM1-8May24-M	LLM1	n/a	8-May-24	1	6.35	10	14/50	Coarse	CRCL
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-001	LLM1-8May24-M	LLM1	n/a	8-May-24	1	6.35	10	14/50	Coarse	CRCO
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-001	LLM1-8May24-M	LLM1	n/a	8-May-24	1	6.35	10	14/50	Coarse	CRCO
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-001	LLM1-8May24-M	LLM1	n/a	8-May-24	1	6.35	10	2/50	Fine	CRCO
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-001	LLM1-8May24-M	LLM1	n/a	8-May-24	1	6.35	10	14/50	Coarse	CRCO
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-001	LLM1-8May24-M	LLM1	n/a	8-May-24	1	6.35	10	14/50	Coarse	CRCO
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-001	LLM1-8May24-M	LLM1	n/a	8-May-24	1	6.35	10	14/50	Coarse	CRCO
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-001	LLM1-8May24-M	LLM1	n/a	8-May-24	1	6.35	10	2/50	Fine	CRCO
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-001	LLM1-8May24-M	LLM1	n/a	8-May-24	1	6.35	10	2/50	Fine	ROTI
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-001	LLM1-8May24-M	LLM1	n/a	8-May-24	1	6.35	10	2/50	Fine	ROTI
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-001	LLM1-8May24-M	LLM1	n/a	8-May-24	1	6.35	10	2/50	Fine	ROTI
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-001	LLM1-8May24-M	LLM1	n/a	8-May-24	1	6.35	10	2/50	Fine	ROTI
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-001	LLM1-8May24-M	LLM1	n/a	8-May-24	1	6.35	10	2/50	Fine	ROTI
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-001	LLM1-8May24-M	LLM1	n/a	8-May-24	1	6.35	10	2/50	Fine	ROTI
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-001	LLM1-8May24-M	LLM1	n/a	8-May-24	1	6.35	10	2/50	Fine	ROTI
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-001	LLM1-8May24-M	LLM1	n/a	8-May-24	1	6.35	10	2/50	Fine	ROTI
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-001	LLM1-8May24-M	LLM1	n/a	8-May-24	1	6.35	10	2/50	Fine	ROTI
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002	NNL1-8May24-M	NNL1	n/a	8-May-24	1	6.35	10	8/50	Coarse	CRCL
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002	NNL1-8May24-M	NNL1	n/a	8-May-24	1	6.35	10	8/50	Coarse	CRCL
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002	NNL1-8May24-M	NNL1	n/a	8-May-24	1	6.35	10	8/50	Coarse	CRCL
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002	NNL1-8May24-M	NNL1	n/a	8-May-24	1	6.35	10	8/50	Coarse	CRCL
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002	NNL1-8May24-M	NNL1	n/a	8-May-24	1	6.35	10	8/50	Coarse	CRCO
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002	NNL1-8May24-M	NNL1	n/a	8-May-24	1	6.35	10	8/50	Coarse	CRCO
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002	NNL1-8May24-M	NNL1	n/a	8-May-24	1	6.35	10	2/50	Fine	CRCO
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002	NNL1-8May24-M	NNL1	n/a	8-May-24	1	6.35	10	8/50	Coarse	CRCO
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002	NNL1-8May24-M	NNL1	n/a	8-May-24	1	6.35	10	8/50	Coarse	CRCO
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002	NNL1-8May24-M	NNL1	n/a	8-May-24	1	6.35	10	2/50	Fine	CRCO
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002	NNL1-8May24-M	NNL1	n/a	8-May-24	1	6.35	10	2/50	Fine	ROTI
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002	NNL1-8May24-M	NNL1	n/a	8-May-24	1	6.35	10	2/50	Fine	ROTI
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002	NNL1-8May24-M	NNL1	n/a	8-May-24	1	6.35	10	2/50	Fine	ROTI
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002	NNL1-8May24-M	NNL1	n/a	8-May-24	1	6.35	10	2/50	Fine	ROTI
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002	NNL1-8May24-M	NNL1	n/a	8-May-24	1	6.35	10	2/50	Fine	ROTI
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002_QA	NNL1-8May24-M_QA	NNL1_QA	n/a	8-May-24	1	6.35	10	8/50	Coarse	CRCL
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002_QA	NNL1-8May24-M_QA	NNL1_QA	n/a	8-May-24	1	6.35	10	8/50	Coarse	CRCL
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002_QA	NNL1-8May24-M_QA	NNL1_QA	n/a	8-May-24	1	6.35	10	8/50	Coarse	CRCL
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002_QA	NNL1-8May24-M_QA	NNL1_QA	n/a	8-May-24	1	6.35	10	8/50	Coarse	CRCO
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002_QA	NNL1-8May24-M_QA	NNL1_QA	n/a	8-May-24	1	6.35	10	8/50	Coarse	CRCO
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002_QA	NNL1-8May24-M_QA	NNL1_QA	n/a	8-May-24	1	6.35	10	8/50	Coarse	CRCO
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002_QA	NNL1-8May24-M_QA	NNL1_QA	n/a	8-May-24	1	6.35	10	2/50	Fine	CRCO
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002_QA	NNL1-8May24-M_QA	NNL1_QA	n/a	8-May-24	1	6.35	10	8/50	Coarse	CRCO
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002_QA	NNL1-8May24-M_QA	NNL1_QA	n/a	8-May-24	1	6.35	10	8/50	Coarse	CRCO
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002_QA	NNL1-8May24-M_QA	NNL1_QA	n/a	8-May-24	1	6.35	10	2/50	Fine	CRCO
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002_QA	NNL1-8May24-M_QA	NNL1_QA	n/a	8-May-24	1	6.35	10	2/50	Fine	ROTI
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002_QA	NNL1-8May24-M_QA	NNL1_QA	n/a	8-May-24	1	6.35	10	2/50	Fine	ROTI
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002_QA	NNL1-8May24-M_QA	NNL1_QA	n/a	8-May-24	1	6.35	10	2/50	Fine	ROTI
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002_QA	NNL1-8May24-M_QA	NNL1_QA	n/a	8-May-24	1	6.35	10	2/50	Fine	ROTI
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002_QA	NNL1-8May24-M_QA	NNL1_QA	n/a	8-May-24	1	6.35	10	2/50	Fine	ROTI
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-003	NNL1-8May24-R	NNL1	n/a	8-May-24	1	6.35	10	12/50	Coarse	CRCL
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-003	NNL1-8May24-R	NNL1	n/a	8-May-24	1	6.35	10	12/50	Coarse	CRCL
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-003	NNL1-8May24-R	NNL1	n/a	8-May-24	1	6.35	10	12/50	Coarse	CRCL

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Zooplankton raw count data for abundance and biomass calculations for Quinsam Coal Corp, Quins

Client	Project	Year	Biologica Sample ID	Client Sample ID	Major Group	Phylum	Order	Family	Taxon	Stage	Raw Count	Split Multiplier	Total Abundance	Tow Volume (L)	Density (#/L)	Unique Tax	Comments
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-001	LLM1-8May24-M	Crustacea Cladocera	Arthropoda	Diplostraca	Bosminidae	Bosmina longirostris	A	19	3.57	68	126.68	0.54	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-001	LLM1-8May24-M	Crustacea Cladocera	Arthropoda	Diplostraca	Daphniidae	Daphnia sp.	A	74	3.57	264	126.68	2.09	1	Possibly D. rosea
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-001	LLM1-8May24-M	Crustacea Cladocera	Arthropoda	Diplostraca	Holopediidae	Holopedium gibberum	A	2	3.57	7	126.68	0.06	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-001	LLM1-8May24-M	Crustacea Copepoda Calanoida	Arthropoda	Calanoida	Diaptomidae	Diaptomidae indet.	VIf	1	3.57	4	126.68	0.03	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-001	LLM1-8May24-M	Crustacea Copepoda Calanoida	Arthropoda	Calanoida		Calanoida indet.	I-V	36	3.57	129	126.68	1.01		
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-001	LLM1-8May24-M	Crustacea Copepoda Calanoida	Arthropoda	Calanoida		Calanoida indet.	Nauplius	9	25.00	225	126.68	1.78		
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-001	LLM1-8May24-M	Crustacea Copepoda Cyclopoida	Arthropoda	Cyclopoida	Cyclopidae	Diacyclops thomasi	VIf	5	3.57	18	126.68	0.14	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-001	LLM1-8May24-M	Crustacea Copepoda Cyclopoida	Arthropoda	Cyclopoida	Cyclopidae	Diacyclops thomasi	VIm	3	3.57	11	126.68	0.08		
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-001	LLM1-8May24-M	Crustacea Copepoda Cyclopoida	Arthropoda	Cyclopoida		Cyclopoida indet.	I-V	87	3.57	311	126.68	2.45		
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-001	LLM1-8May24-M	Crustacea Copepoda Cyclopoida	Arthropoda	Cyclopoida		Cyclopoida indet.	Nauplius	29	25.00	725	126.68	5.72		
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-001	LLM1-8May24-M	Rotifera	Rotifera	Ploima	Asplanchnidae	Asplanchna sp.	Individual	1	25.00	25	126.68	0.20	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-001	LLM1-8May24-M	Rotifera	Rotifera	Ploima	Brachionidae	Kellicottia longispina	Individual	3	25.00	75	126.68	0.59	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-001	LLM1-8May24-M	Rotifera	Rotifera	Ploima	Brachionidae	Keratella sp. 1	Individual	10	25.00	250	126.68	1.97	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-001	LLM1-8May24-M	Rotifera	Rotifera	Ploima	Brachionidae	Keratella sp. 2	Individual	4	25.00	100	126.68	0.79	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-001	LLM1-8May24-M	Rotifera	Rotifera	Ploima	Gastropodidae	Gastropus sp.	Individual	1	25.00	25	126.68	0.20	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-001	LLM1-8May24-M	Rotifera	Rotifera	Ploima	Synchaetidae	Polyarthra sp.	Individual	33	25.00	825	126.68	6.51	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-001	LLM1-8May24-M	Rotifera	Rotifera	Ploima	Synchaetidae	Synchaeta sp.	Individual	2	25.00	50	126.68	0.39	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-001	LLM1-8May24-M	Rotifera	Rotifera	Ploima	Trichocercidae	Trichocerca sp.	Individual	2	25.00	50	126.68	0.39	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-001	LLM1-8May24-M	Rotifera	Rotifera	Ploima		Ploima indet.	Individual	14	25.00	350	126.68	2.76		Possibly Synchaeta or Gastropus
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002	NNL1-8May24-M	Crustacea Cladocera	Arthropoda	Diplostraca	Bosminidae	Eubosmina longispina	A	9	6.25	56	126.68	0.44	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002	NNL1-8May24-M	Crustacea Cladocera	Arthropoda	Diplostraca	Daphniidae	Daphnia sp.	A	123	6.25	769	126.68	6.07	1	Possibly D. rosea
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002	NNL1-8May24-M	Crustacea Cladocera	Arthropoda	Diplostraca	Holopediidae	Holopedium gibberum	A	39	6.25	244	126.68	1.92	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002	NNL1-8May24-M	Crustacea Cladocera	Arthropoda	Diplostraca	Sididae	Diaphanosoma sp.	A	1	6.25	6	126.68	0.05	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002	NNL1-8May24-M	Crustacea Copepoda Calanoida	Arthropoda	Calanoida	Diaptomidae	Diaptomidae indet.	VIf	1	6.25	6	126.68	0.05	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002	NNL1-8May24-M	Crustacea Copepoda Calanoida	Arthropoda	Calanoida		Calanoida indet.	I-V	26	6.25	163	126.68	1.28		
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002	NNL1-8May24-M	Crustacea Copepoda Calanoida	Arthropoda	Calanoida		Calanoida indet.	Nauplius	19	25.00	475	126.68	3.75		
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002	NNL1-8May24-M	Crustacea Copepoda Cyclopoida	Arthropoda	Cyclopoida	Cyclopidae	Diacyclops thomasi	VIf	1	6.25	6	126.68	0.05	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002	NNL1-8May24-M	Crustacea Copepoda Cyclopoida	Arthropoda	Cyclopoida		Cyclopoida indet.	I-V	25	6.25	156	126.68	1.23		
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002	NNL1-8May24-M	Crustacea Copepoda Cyclopoida	Arthropoda	Cyclopoida		Cyclopoida indet.	Nauplius	24	25.00	600	126.68	4.74		
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002	NNL1-8May24-M	Rotifera	Rotifera	Floscularіaceae	Conochilidae	Conochilus sp.	Individual	57	25.00	1,425	126.68	11.25	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002	NNL1-8May24-M	Rotifera	Rotifera	Ploima	Brachionidae	Kellicottia longispina	Individual	3	25.00	75	126.68	0.59	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002	NNL1-8May24-M	Rotifera	Rotifera	Ploima	Brachionidae	Keratella sp. 1	Individual	3	25.00	75	126.68	0.59	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002	NNL1-8May24-M	Rotifera	Rotifera	Ploima	Synchaetidae	Polyarthra sp.	Individual	4	25.00	100	126.68	0.79	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002	NNL1-8May24-M	Rotifera	Rotifera	Ploima		Ploima indet.	Individual	1	25.00	25	126.68	0.20		Possibly Gastropus, Ascomorpha, or Asplan
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002_QA	NNL1-8May24-M_QA	Crustacea Cladocera	Arthropoda	Diplostraca	Bosminidae	Bosminidae indet.	A	11	6.25	69	126.68	0.54	1	Possibly E. longispina and B. longirostris
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002_QA	NNL1-8May24-M_QA	Crustacea Cladocera	Arthropoda	Diplostraca	Daphniidae	Daphnia sp.	A	132	6.25	825	126.68	6.51	1	Possibly D. rosea
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002_QA	NNL1-8May24-M_QA	Crustacea Cladocera	Arthropoda	Diplostraca	Holopediidae	Holopedium gibberum	A	19	6.25	119	126.68	0.94	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002_QA	NNL1-8May24-M_QA	Crustacea Copepoda Calanoida	Arthropoda	Calanoida	Diaptomidae	Diaptomidae indet.	VIf	1	6.25	6	126.68	0.05	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002_QA	NNL1-8May24-M_QA	Crustacea Copepoda Calanoida	Arthropoda	Calanoida	Diaptomidae	Diaptomidae indet.	VIm	1	6.25	6	126.68	0.05		Damaged, possibly Skistodiaptomus oregor
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002_QA	NNL1-8May24-M_QA	Crustacea Copepoda Calanoida	Arthropoda	Calanoida		Calanoida indet.	I-V	16	6.25	100	126.68	0.79		
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002_QA	NNL1-8May24-M_QA	Crustacea Copepoda Calanoida	Arthropoda	Calanoida		Calanoida indet.	Nauplius	15	25.00	375	126.68	2.96		
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002_QA	NNL1-8May24-M_QA	Crustacea Copepoda Cyclopoida	Arthropoda	Cyclopoida	Cyclopidae	Diacyclops thomasi	VIf	2	6.25	13	126.68	0.10	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002_QA	NNL1-8May24-M_QA	Crustacea Copepoda Cyclopoida	Arthropoda	Cyclopoida		Cyclopoida indet.	I-V	24	6.25	150	126.68	1.18		
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002_QA	NNL1-8May24-M_QA	Crustacea Copepoda Cyclopoida	Arthropoda	Cyclopoida		Cyclopoida indet.	Nauplius	19	25.00	475	126.68	3.75		
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002_QA	NNL1-8May24-M_QA	Rotifera	Rotifera	Floscularіaceae	Conochilidae	Conochilus sp.	Individual	47	25.00	1,175	126.68	9.28	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002_QA	NNL1-8May24-M_QA	Rotifera	Rotifera	Ploima	Brachionidae	Kellicottia longispina	Individual	8	25.00	200	126.68	1.58	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002_QA	NNL1-8May24-M_QA	Rotifera	Rotifera	Ploima	Brachionidae	Keratella sp. 1	Individual	3	25.00	75	126.68	0.59	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002_QA	NNL1-8May24-M_QA	Rotifera	Rotifera	Ploima	Gastropodidae	Gastropus stylifer	Individual	1	25.00	25	126.68	0.20	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-002_QA	NNL1-8May24-M_QA	Rotifera	Rotifera	Ploima	Synchaetidae	Polyarthra sp.	Individual	4	25.00	100	126.68	0.79	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-003	NNL1-8May24-R	Crustacea Cladocera	Arthropoda	Diplostraca	Bosminidae	Eubosmina longispina	A	1	4.17	4	126.68	0.03	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-003	NNL1-8May24-R	Crustacea Cladocera	Arthropoda	Diplostraca	Daphniidae	Daphnia sp.	A	126	4.17	525	126.68	4.14	1	Possibly D. rosea
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-003	NNL1-8May24-R	Crustacea Cladocera	Arthropoda	Diplostraca	Holopediidae	Holopedium gibberum	A	33	4.17	138	126.68	1.09	1	

Zooplankton raw count data for abundance and biomass calculations for Quinsam Coal Corp, Quinsam Lakes Batch 1, 2024

Client	Project	Year	Biologica Sample ID	Client Sample ID	Site Name	FES Sample Number	Date Sampled	Batch	Net Radius (cm)	Tow Length (m)	Split	Fraction	Groupcode
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-003	NNL1-8May24-R	NNL1	n/a	8-May-24	1	6.35	10	12/50	Coarse	CRCO
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-003	NNL1-8May24-R	NNL1	n/a	8-May-24	1	6.35	10	12/50	Coarse	CRCO
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-003	NNL1-8May24-R	NNL1	n/a	8-May-24	1	6.35	10	12/50	Coarse	CRCO
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-003	NNL1-8May24-R	NNL1	n/a	8-May-24	1	6.35	10	12/50	Coarse	CRCO
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-003	NNL1-8May24-R	NNL1	n/a	8-May-24	1	6.35	10	12/50	Coarse	CRCO
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-003	NNL1-8May24-R	NNL1	n/a	8-May-24	1	6.35	10	3/50	Fine	CRCO
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-003	NNL1-8May24-R	NNL1	n/a	8-May-24	1	6.35	10	12/50	Coarse	CRCO
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-003	NNL1-8May24-R	NNL1	n/a	8-May-24	1	6.35	10	12/50	Coarse	CRCO
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-003	NNL1-8May24-R	NNL1	n/a	8-May-24	1	6.35	10	3/50	Fine	CRCO
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-003	NNL1-8May24-R	NNL1	n/a	8-May-24	1	6.35	10	3/50	Fine	ROTI
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-003	NNL1-8May24-R	NNL1	n/a	8-May-24	1	6.35	10	3/50	Fine	ROTI
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-003	NNL1-8May24-R	NNL1	n/a	8-May-24	1	6.35	10	3/50	Fine	ROTI
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-003	NNL1-8May24-R	NNL1	n/a	8-May-24	1	6.35	10	3/50	Fine	ROTI
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-003	NNL1-8May24-R	NNL1	n/a	8-May-24	1	6.35	10	3/50	Fine	ROTI
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-003	NNL1-8May24-R	NNL1	n/a	8-May-24	1	6.35	10	3/50	Fine	ROTI
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-004	MQL1-8May24-M	MQL1	n/a	8-May-24	1	6.35	10	Whole	Coarse	CRCL
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-004	MQL1-8May24-M	MQL1	n/a	8-May-24	1	6.35	10	Whole	Coarse	CRCL
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-004	MQL1-8May24-M	MQL1	n/a	8-May-24	1	6.35	10	Whole	Coarse	CRCL
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-004	MQL1-8May24-M	MQL1	n/a	8-May-24	1	6.35	10	Whole	Coarse	CRCL
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-004	MQL1-8May24-M	MQL1	n/a	8-May-24	1	6.35	10	Whole	Coarse	CRCL
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-004	MQL1-8May24-M	MQL1	n/a	8-May-24	1	6.35	10	Whole	Coarse	CRCO
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-004	MQL1-8May24-M	MQL1	n/a	8-May-24	1	6.35	10	Whole	Coarse	CRCO
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-004	MQL1-8May24-M	MQL1	n/a	8-May-24	1	6.35	10	Whole	Coarse	CRCO
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-004	MQL1-8May24-M	MQL1	n/a	8-May-24	1	6.35	10	Whole	Coarse	CRCO
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-004	MQL1-8May24-M	MQL1	n/a	8-May-24	1	6.35	10	2/50	Fine	CRCO
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-004	MQL1-8May24-M	MQL1	n/a	8-May-24	1	6.35	10	Whole	Coarse	CRCO
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-004	MQL1-8May24-M	MQL1	n/a	8-May-24	1	6.35	10	Whole	Coarse	CRCO
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-004	MQL1-8May24-M	MQL1	n/a	8-May-24	1	6.35	10	Whole	Coarse	CRCO
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-004	MQL1-8May24-M	MQL1	n/a	8-May-24	1	6.35	10	2/50	Fine	CRCO
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-004	MQL1-8May24-M	MQL1	n/a	8-May-24	1	6.35	10	2/50	Fine	ROTI
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-004	MQL1-8May24-M	MQL1	n/a	8-May-24	1	6.35	10	2/50	Fine	ROTI
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-004	MQL1-8May24-M	MQL1	n/a	8-May-24	1	6.35	10	2/50	Fine	ROTI
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-004	MQL1-8May24-M	MQL1	n/a	8-May-24	1	6.35	10	2/50	Fine	ROTI
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-004	MQL1-8May24-M	MQL1	n/a	8-May-24	1	6.35	10	2/50	Fine	ROTI
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-004	MQL1-8May24-M	MQL1	n/a	8-May-24	1	6.35	10	2/50	Fine	ROTI
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-004	MQL1-8May24-M	MQL1	n/a	8-May-24	1	6.35	10	2/50	Fine	ROTI
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-005	LQL1-8May24-M	LQL1	n/a	8-May-24	1	6.35	10	7/50	Coarse	CRCL
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-005	LQL1-8May24-M	LQL1	n/a	8-May-24	1	6.35	10	7/50	Coarse	CRCL
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-005	LQL1-8May24-M	LQL1	n/a	8-May-24	1	6.35	10	7/50	Coarse	CRCL
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-005	LQL1-8May24-M	LQL1	n/a	8-May-24	1	6.35	10	7/50	Coarse	CRCL
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-005	LQL1-8May24-M	LQL1	n/a	8-May-24	1	6.35	10	7/50	Coarse	CRCL
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-005	LQL1-8May24-M	LQL1	n/a	8-May-24	1	6.35	10	7/50	Coarse	CRCO
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-005	LQL1-8May24-M	LQL1	n/a	8-May-24	1	6.35	10	1/50	Fine	CRCO
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-005	LQL1-8May24-M	LQL1	n/a	8-May-24	1	6.35	10	7/50	Coarse	CRCO
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-005	LQL1-8May24-M	LQL1	n/a	8-May-24	1	6.35	10	7/50	Coarse	CRCO
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-005	LQL1-8May24-M	LQL1	n/a	8-May-24	1	6.35	10	1/50	Fine	CRCO
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-005	LQL1-8May24-M	LQL1	n/a	8-May-24	1	6.35	10	1/50	Fine	ROTI
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-005	LQL1-8May24-M	LQL1	n/a	8-May-24	1	6.35	10	1/50	Fine	ROTI
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-005	LQL1-8May24-M	LQL1	n/a	8-May-24	1	6.35	10	1/50	Fine	ROTI
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-005	LQL1-8May24-M	LQL1	n/a	8-May-24	1	6.35	10	1/50	Fine	ROTI
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-005	LQL1-8May24-M	LQL1	n/a	8-May-24	1	6.35	10	1/50	Fine	ROTI
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-005	LQL1-8May24-M	LQL1	n/a	8-May-24	1	6.35	10	1/50	Fine	ROTI
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-005	LQL1-8May24-M	LQL1	n/a	8-May-24	1	6.35	10	1/50	Fine	ROTI
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-005	LQL1-8May24-M	LQL1	n/a	8-May-24	1	6.35	10	1/50	Fine	ROTI

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Zooplankton raw count data for abundance and biomass calculations for Quinsam Coal Corp, Quins

Client	Project	Year	Biologica Sample ID	Client Sample ID	Major Group	Phylum	Order	Family	Taxon	Stage	Raw Count	Split Multiplier	Total Abundance	Tow Volume (L)	Density (#/L)	Unique Tax	Comments
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-003	NNL1-8May24-R	Crustacea Copepoda Calanoida	Arthropoda	Calanoida	Diaptomidae	Hesperodiaptomus sp.	VIf	1	4.17	4	126.68	0.03	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-003	NNL1-8May24-R	Crustacea Copepoda Calanoida	Arthropoda	Calanoida	Diaptomidae	Hesperodiaptomus sp.	VIm	1	4.17	4	126.68	0.03		Possibly H. hirsutus
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-003	NNL1-8May24-R	Crustacea Copepoda Calanoida	Arthropoda	Calanoida	Diaptomidae	Skistodiaptomus oregonensis	VIf	2	4.17	8	126.68	0.07	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-003	NNL1-8May24-R	Crustacea Copepoda Calanoida	Arthropoda	Calanoida	Diaptomidae	Skistodiaptomus oregonensis	VIm	2	4.17	8	126.68	0.07		
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-003	NNL1-8May24-R	Crustacea Copepoda Calanoida	Arthropoda	Calanoida		Calanoida indet.	I-V	26	4.17	108	126.68	0.86		
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-003	NNL1-8May24-R	Crustacea Copepoda Calanoida	Arthropoda	Calanoida		Calanoida indet.	Nauplius	20	16.67	333	126.68	2.63		
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-003	NNL1-8May24-R	Crustacea Copepoda Cyclopoida	Arthropoda	Cyclopoida	Cyclopidae	Diacyclops thomasi	VIf	1	4.17	4	126.68	0.03	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-003	NNL1-8May24-R	Crustacea Copepoda Cyclopoida	Arthropoda	Cyclopoida		Cyclopoida indet.	I-V	38	4.17	158	126.68	1.25		
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-003	NNL1-8May24-R	Crustacea Copepoda Cyclopoida	Arthropoda	Cyclopoida		Cyclopoida indet.	Nauplius	29	16.67	483	126.68	3.82		
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-003	NNL1-8May24-R	Rotifera	Rotifera	Floscullariaceae	Conochilidae	Conochilus sp.	Colony	1	16.67	17	126.68	0.13	1	Colony of 5 individuals
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-003	NNL1-8May24-R	Rotifera	Rotifera	Floscullariaceae	Conochilidae	Conochilus sp.	Individual	87	16.67	1,450	126.68	11.45		
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-003	NNL1-8May24-R	Rotifera	Rotifera	Ploima	Brachionidae	Kellicottia longispina	Individual	2	16.67	33	126.68	0.26	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-003	NNL1-8May24-R	Rotifera	Rotifera	Ploima	Brachionidae	Keratella sp. 1	Individual	1	16.67	17	126.68	0.13	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-003	NNL1-8May24-R	Rotifera	Rotifera	Ploima	Gastropodidae	Gastropus stylifer	Individual	1	16.67	17	126.68	0.13	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-003	NNL1-8May24-R	Rotifera	Rotifera	Ploima	Synchaetidae	Polyarthra sp.	Individual	1	16.67	17	126.68	0.13	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-004	MQL1-8May24-M	Crustacea Cladocera	Arthropoda	Diplostraca	Bosminidae	Eubosmina longispina	A	20	1.00	20	126.68	0.16	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-004	MQL1-8May24-M	Crustacea Cladocera	Arthropoda	Diplostraca	Chydoridae	Alona sp.	A	2	1.00	2	126.68	0.02	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-004	MQL1-8May24-M	Crustacea Cladocera	Arthropoda	Diplostraca	Chydoridae	Chydorus sphaericus	A	2	1.00	2	126.68	0.02	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-004	MQL1-8May24-M	Crustacea Cladocera	Arthropoda	Diplostraca	Daphniidae	Daphnia sp.	A	221	1.00	221	126.68	1.74	1	Possibly D. rosea
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-004	MQL1-8May24-M	Crustacea Cladocera	Arthropoda	Diplostraca	Holopediidae	Holopedium gibberum	A	11	1.00	11	126.68	0.09	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-004	MQL1-8May24-M	Crustacea Copepoda Calanoida	Arthropoda	Calanoida	Diaptomidae	Diaptomidae indet.	VIf	1	1.00	1	126.68	0.01		
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-004	MQL1-8May24-M	Crustacea Copepoda Calanoida	Arthropoda	Calanoida	Diaptomidae	Hesperodiaptomus sp.	VIf	3	1.00	3	126.68	0.02	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-004	MQL1-8May24-M	Crustacea Copepoda Calanoida	Arthropoda	Calanoida	Diaptomidae	Hesperodiaptomus sp.	VIm	4	1.00	4	126.68	0.03		
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-004	MQL1-8May24-M	Crustacea Copepoda Calanoida	Arthropoda	Calanoida		Calanoida indet.	I-V	34	1.00	34	126.68	0.27		Possibly 2 immature Hesperodiaptomus
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-004	MQL1-8May24-M	Crustacea Copepoda Calanoida	Arthropoda	Calanoida		Calanoida indet.	Nauplius	10	25.00	250	126.68	1.97		
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-004	MQL1-8May24-M	Crustacea Copepoda Cyclopoida	Arthropoda	Cyclopoida	Cyclopidae	Diacyclops thomasi	VIf	38	1.00	38	126.68	0.30	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-004	MQL1-8May24-M	Crustacea Copepoda Cyclopoida	Arthropoda	Cyclopoida	Cyclopidae	Diacyclops thomasi	VIm	19	1.00	19	126.68	0.15		
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-004	MQL1-8May24-M	Crustacea Copepoda Cyclopoida	Arthropoda	Cyclopoida		Cyclopoida indet.	I-V	25	1.00	25	126.68	0.20		
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-004	MQL1-8May24-M	Crustacea Copepoda Cyclopoida	Arthropoda	Cyclopoida		Cyclopoida indet.	Nauplius	106	25.00	2,650	126.68	20.92		
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-004	MQL1-8May24-M	Rotifera	Rotifera	Floscullariaceae	Conochilidae	Conochilus sp.	Individual	4	25.00	100	126.68	0.79	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-004	MQL1-8May24-M	Rotifera	Rotifera	Ploima	Brachionidae	Kellicottia longispina	Individual	3	25.00	75	126.68	0.59	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-004	MQL1-8May24-M	Rotifera	Rotifera	Ploima	Brachionidae	Keratella sp. 1	Individual	3	25.00	75	126.68	0.59	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-004	MQL1-8May24-M	Rotifera	Rotifera	Ploima	Brachionidae	Keratella sp. 2	Individual	2	25.00	50	126.68	0.39	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-004	MQL1-8May24-M	Rotifera	Rotifera	Ploima	Gastropodidae	Gastropus stylifer	Individual	2	25.00	50	126.68	0.39	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-004	MQL1-8May24-M	Rotifera	Rotifera	Ploima	Synchaetidae	Polyarthra sp.	Individual	1	25.00	25	126.68	0.20	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-004	MQL1-8May24-M	Rotifera	Rotifera	Ploima	Synchaetidae	Synchaeta sp.	Individual	1	25.00	25	126.68	0.20	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-005	LQL1-8May24-M	Crustacea Cladocera	Arthropoda	Diplostraca	Bosminidae	Bosminidae indet.	A	11	7.14	79	126.68	0.62	1	Degraded
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-005	LQL1-8May24-M	Crustacea Cladocera	Arthropoda	Diplostraca	Chydoridae	Alona sp.	A	1	7.14	7	126.68	0.06	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-005	LQL1-8May24-M	Crustacea Cladocera	Arthropoda	Diplostraca	Daphniidae	Daphnia sp.	A	5	7.14	36	126.68	0.28	1	Possibly D. rosea
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-005	LQL1-8May24-M	Crustacea Cladocera	Arthropoda	Diplostraca	Holopediidae	Holopedium gibberum	A	1	7.14	7	126.68	0.06	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-005	LQL1-8May24-M	Crustacea Cladocera	Arthropoda	Diplostraca	Sididae	Diaphanosoma sp.	A	2	7.14	14	126.68	0.11	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-005	LQL1-8May24-M	Crustacea Copepoda Calanoida	Arthropoda	Calanoida		Calanoida indet.	I-V	2	7.14	14	126.68	0.11	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-005	LQL1-8May24-M	Crustacea Copepoda Calanoida	Arthropoda	Calanoida		Calanoida indet.	Nauplius	3	50.00	150	126.68	1.18		
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-005	LQL1-8May24-M	Crustacea Copepoda Cyclopoida	Arthropoda	Cyclopoida	Cyclopidae	Diacyclops thomasi	VIm	3	7.14	21	126.68	0.17	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-005	LQL1-8May24-M	Crustacea Copepoda Cyclopoida	Arthropoda	Cyclopoida		Cyclopoida indet.	I-V	292	7.14	2,086	126.68	16.46		
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-005	LQL1-8May24-M	Crustacea Copepoda Cyclopoida	Arthropoda	Cyclopoida		Cyclopoida indet.	Nauplius	24	50.00	1,200	126.68	9.47		
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-005	LQL1-8May24-M	Rotifera	Rotifera	Floscullariaceae	Conochilidae	Conochilus sp.	Colony	9	50.00	450	126.68	3.55	1	Colony of 4 individuals
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-005	LQL1-8May24-M	Rotifera	Rotifera	Floscullariaceae	Conochilidae	Conochilus sp.	Individual	20	50.00	1,000	126.68	7.89		
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-005	LQL1-8May24-M	Rotifera	Rotifera	Ploima	Brachionidae	Kellicottia longispina	Individual	2	50.00	100	126.68	0.79	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-005	LQL1-8May24-M	Rotifera	Rotifera	Ploima	Brachionidae	Keratella sp. 1	Individual	13	50.00	650	126.68	5.13	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-005	LQL1-8May24-M	Rotifera	Rotifera	Ploima	Brachionidae	Keratella sp. 2	Individual	1	50.00	50	126.68	0.39	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-005	LQL1-8May24-M	Rotifera	Rotifera	Ploima	Gastropodidae	Gastropus stylifer	Individual	6	50.00	300	126.68	2.37	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-005	LQL1-8May24-M	Rotifera	Rotifera	Ploima	Synchaetidae	Polyarthra sp.	Individual	7	50.00	350	126.68	2.76	1	
Quinsam Coal Corp.	Quinsam Lakes	2024	fz24-123-005	LQL1-8May24-M	Rotifera	Rotifera	Ploima		Ploima indet.	Individual	34	50.00	1,700	126.68	13.42		Possibly Synchaeta

Quality control report of zooplankton density in QA samples for Quinsam Coal Corp, Quinsam Lakes Batch 1, 2024

Biologica QA Sample ID	Client QA Sample ID	Density (#/L) (Original Replicate)	Density (#/L) (QA Replicate)	Percent Agreement
fz24-123-002	NNL1-8May24-M	33.01	29.31	**88.79**

Percent Agreement: {100 - [(difference in density between samples) / total density of original sample) x 100]} %